

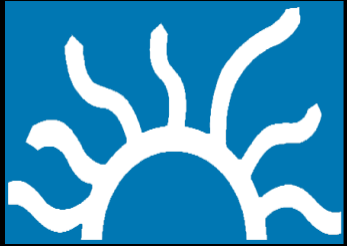
# Traumatic Brain Injury in Alabama



## **Screening, Diagnosis, Services and Supports**

**Alabama Department of Rehabilitation Services**

**April B. Turner -State Head Injury Coordinator**



# Alabama Department of **REHABILITATION SERVICES**

April B. Turner, MS, CRC  
State Head Injury Coordinator  
Alabama Department of Rehabilitation  
Services



# Objectives:

1. Screening
2. TBI 101- Diagnosis
3. Alabama TBI Services
4. Alabama TBI Supports

# Screening for History of a Head Injury

# PREVALENCE:

Each year in the US TBI results in **approximately 2.8 million ER visits, hospitalizations, and deaths.**

In Alabama, **over 6,000 newly injured individuals** are hospitalized **each year** according to the Alabama Head and Spinal Cord Injury Registry.

Almost half of adults with TBI who **have no pre-injury history of mental health problems** may develop mental health problems after the TBI.

A recent TBI pilot study within the Alabama Department of Mental Health showed: **1 in 3 screened positive for TBI**. Those with a **suicide attempt** were **2.6X** more likely to have a history of TBI and **1.14 X** more likely to be diagnosed with a Trauma Disorder along with taking antipsychotics and mood stabilizers.

# Screening for: Possible History of Head Injury- Knowing is important

- ...blow to your head?
- ...hit your head?
- ...head hit against solid objects?
- ...told you had a concussion?
- ...ever seen in hospital or ER for hitting your head?
- ...hit your head during a fall?
- ...been strangled?
- ....ever blacked out/knocked out from hitting head
- .....ever overdosed and lost oxygen
- In your application or intake process?



# Ohio State University TBI Identification Method — Interview Form

## Step 1

Ask questions 1-5 below. Record the cause of each reported injury and any details provided spontaneously in the chart at the bottom of this page. You do not need to ask further about loss of consciousness or other injury details during this step.

**I am going to ask you about injuries to your head or neck that you may have had anytime in your life.**

1. In your lifetime, have you ever been hospitalized or treated in an emergency room following an injury to your head or neck? Think about any childhood injuries you remember or were told about.

☐ No ☐ Yes—Record cause in chart

2. In your lifetime, have you ever injured your head or neck in a car accident or from crashing some other moving vehicle like a bicycle, motorcycle or ATV?

☐ No ☐ Yes—Record cause in chart

3. In your lifetime, have you ever injured your head or neck in a fall or from being hit by something (for example, falling from a bike or horse, rollerblading, falling on ice, being hit by a rock)? Have you ever injured your head or neck playing sports or on the playground?

☐ No ☐ Yes—Record cause in chart

4. In your lifetime, have you ever injured your head or neck in a fight, from being hit by someone, or from being shaken violently? Have you ever been shot in the head?

☐ No ☐ Yes—Record cause in chart

5. In your lifetime, have you ever been nearby when an explosion or a blast occurred? If you served in the military, think about any combat- or training-related incidents.

☐ No ☐ Yes—Record cause in chart

### Interviewer instruction:

If the answers to any of the above questions are “yes,” go to Step 2. If the answers to all of the above questions are “no,” then proceed to Step 3.

## Step 2

Interviewer instruction: If the answer is “yes” to any of the questions in Step 1 ask the following additional questions about each reported injury and add details to the chart below.

Were you knocked out or did you lose consciousness (LOC)?

If yes, how long?

If no, were you dazed or did you have a gap in your memory from the injury?

How old were you?

## Step 3

Interviewer instruction: Ask the following questions to help identify a history that may include multiple mild TBIs and complete the chart below.

Have you ever had a period of time in which you experienced multiple, repeated impacts to your head (e.g. history of abuse, contact sports, military duty)?

If yes, what was the typical or usual effect—were you knocked out (Loss of Consciousness - LOC)?

If no, were you dazed or did you have a gap in your memory from the injury?

What was the most severe effect from one of the times you had an impact to the head?

How old were you when these repeated injuries began? Ended?

## Step 1

Cause

## Step 2

Loss of consciousness (LOC)/knocked out				Dazed/Mem Gap		Age
No LOC	< 30 min	30 min-24 hrs	> 24 hrs	Yes	No	

If more injuries with LOC: How many? \_\_\_\_\_ Longest knocked out? \_\_\_\_\_ How many ≥ 30 mins.? \_\_\_\_\_ Youngest age? \_\_\_\_\_

## Step 3

Cause of repeated injury	Typical Effect		Most Severe Effect				Age	
	Dazed/ memory gap, no LOC	LOC	Dazed/ memory gap, no LOC	LOC < 30 min	LOC 30 min - 24 hrs.	LOC > 24 hrs.	Began	Ended



Name: \_\_\_\_\_

Current Age: \_\_\_\_\_

Interviewer Initials: \_\_\_\_\_

Date: \_\_\_\_\_

## Lifetime History of Traumatic Brain Injury (from the OSU TBI-ID) and other Acquired Brain Injuries

**1.** Please think about injuries you have had during your entire lifetime, especially those that affected your head or neck. It might help to remember times you went to the hospital or emergency department. Think about injuries you may have received from a car or motorcycle wreck, bicycle crash, being hit by something, falling down, being hit by someone, playing sports or an injury during military service.

a. Thinking about any injuries you have had in your lifetime, were you ever knocked out or did you lose consciousness?

☐ Yes

☐ No (IF NO, GO TO QUESTION 2)

b. What was the longest time you were knocked out or unconscious? (Choose just one; if you are not sure please make your best guess.)

☐ knocked out or lost consciousness for less than 30 minutes

☐ knocked out or lost consciousness between 30 minutes and 24 hours

☐ knocked out or lost consciousness for 24 hours or longer

c. How old were you the first time you were knocked out or lost consciousness?  
\_\_\_\_\_ years old

**2.** Have you ever had a period of time in which you experienced multiple, repeated impacts to your head (e.g., history of abuse, contact sports, military duty)?

☐ Yes

☐ No (IF NO, GO TO QUESTION 3)

a. How old were you when these repeated injuries began?  
\_\_\_\_\_ years old

b. How old were you when these repeated injuries ended?  
\_\_\_\_\_ years old

**3.** Have you ever lost consciousness from a drug overdose or being choked?

☐ Yes

☐ No (IF NO, GO TO QUESTION 4)

a. How many times from a drug overdose?  
\_\_\_\_\_ overdose(s)

b. How many time from being choked?  
\_\_\_\_\_ choked

**4.** Have you EVER been told by a doctor or other health professional that you had any of the following?

☐ epilepsy or seizures?

☐ a stroke, cerebral vascular disease or a transient ischemic attack

☐ a tumor of the brain

☐ swelling of the brain (edema)

☐ toxic effects or poisoning by substances

☐ infection like meningitis or encephalitis

☐ a brain bleed or hemorrhage

☐ child or adult maltreatment syndrome

☐ loss of oxygen to the brain - like from a time when you stopped breathing, had a near drowning or experienced a strangulation

### Interpreting Findings

The validity of this tool is not based on elicitation of a perfect accounting for a person's lifetime history of brain injury. Instead, it provides a means to estimate the likelihood that consequences have resulted from one's lifetime exposure.

A person may be more likely to have ongoing problems if they have any of the following:

- WORST: one moderate or severe TBI
- FIRST: TBI with loss of consciousness before age 15
- OTHER SOURCES: any TBI combined with another way their brain function has been impaired

Complete this screening to determine if a person may have had a brain injury. It is important to note that this screening does not result in a diagnosis, is not intended to be used for eligibility determination and DOES NOT replace a face-to-face evaluation and assessment with a trained professional. This information should be treated as Protected Health Information. Deidentified data may be analyzed for program evaluation.



## Screening Questions for History of Head Injury- Short-Adapted from OSU-TBI-ID

Where can you add these in??

1. Thinking about injuries in your lifetime, have you injured your head or neck from a fall, car/motorcycle accident, fight, playing sports or explosion/blast?
2. Have you ever been knocked out or lost consciousness? If yes, was this due to drug overdose, being choked or strangled?

If the answer is yes for either, there is a resource in Alabama that assists individuals with previous/current head injuries. Can I give them your contact information to address any questions or concerns you may have related to head injuries? State Head Injury Coordinator 334 293 7116 or [April.turner@rehab.alabama.gov](mailto:April.turner@rehab.alabama.gov)

# Screening for TBI in Mental Health and Substance Use Disorder Settings

- Mental health and substance use disorder (SUD) providers are likely unknowingly serving individuals with traumatic brain injury (TBI).
- The prevalence of TBI among those seen in behavioral health settings is unknown.
- Alabama Department of Rehabilitation Services (ADRS) and Alabama Department of Mental Health (ADMH) partnered to determine the need for and feasibility of screening for TBI in mental health settings and to examine the scope of TBI among mental health and SUD consumers.

## What we did:

- Mental Health Advisory TBI Workgroup formed
- Pilot sites selected
- TBI screening data form developed
- Screening conducted (Sept 2020 – Mar 2021)
- Follow-up survey with screening employees (Apr 2021)

## Pilot Sites

- East Alabama Mental Health Center (MCH) Chemical Addictions Program
- East Alabama MHC Outpatient Clinic
- Spectracore
- Bryce Hospital

## History of TBI was associated with...

### Diagnoses

- Childhood Mental Disorder
- Cognitive Disorder
- Dissociative Disorder
- Personality Disorder
- Psychotic Disorder
- Trauma/Stress Disorder

### Drug Use

- Tobacco
- Over the Counter Drugs
- Cocaine
- Hallucinogens

### Medications

- Antipsychotics
- Mood Stabilizers

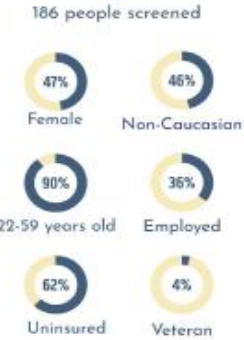


## Risk factors for TBI in pilot sample

- History of suicide attempt
- Severe mental illness and medications used to treat those illnesses
- NOT gender – In general population, men are 2x more likely than women to have history of TBI

Those with a suicide attempt were 2.6x more likely to have a history of TBI.

Those diagnosed with a trauma disorder were 1.14x more likely to have a history of TBI.



Nearly 1 in 3 screened positive for TBI

Screening for TBI in behavioral health settings should be routine



# Screening for TBI in behavioral health settings should be routine

- High prevalence of TBI among those screened (32%)
- This is 3x more than in the general population in developed countries
- EAMH Chemical Addictions Program had more people screen positive for TBI than other pilot sites



Screeners were primarily therapists and all held a Master's degree



83% Were aware their facility treated individuals with head injuries

Were not aware of behavioral interventions/accommodations for those with TBI at their facility



46% Reported their facility intake does not currently include head injury questions

Were not aware of State of Alabama's TBI Helpline



## Screening Tools

Ohio State University (OSU) online screener training  
"What if There's A TBI?" online video training

- 67% completed OSU training
- 42% were trained by another employee on OSU screener
- 75% completed "What if..." training
- Almost all screeners thought both trainings were helpful

## Support and Training



67% Unsure if they have support they need to work with head injury survivors



62% Somewhat disagree they currently have the updated training needed work with head injury survivors



75% Do not know next step in treatment if their patient screens positive for previous head injury



- > Almost all thought screener questions were easy to understand
- > Most thought adding the screener questions to their current intake would be easy



COVID-19 did affect the number of individuals that could be screened, but did not affect the way individuals were screened



## What worked in screening process

- Meeting with clients individually
- Meeting with clients face-to-face
- Quiet area for screening
- Yes/No questions
- Questions that are easy to understand
- Check boxes
- General, not specific, head injury causes/ages

## What did not work in screening process

- Questions that were too specific
- Not enough time for screening process
- Wasn't clear if medical chart could be used for info
- Questions were repetitive if no history of head injury
- Patients struggled to remember details

Implementation of a TBI screening tool in behavioral health settings is feasible. Pilot testing was successful in spite of COVID-19. Data pages were mostly complete and captured key TBI information with minimal training necessary.

## Recommendations

Additional mental health staff training • Focus on patients with severe mental illness, history of suicide, and/or history of addiction • Establish ADMH's definition of head injury/TBI/acquired brain injury • Statewide implementation of TBI screening tools • Guidance on next steps after TBI identification

## Future Directions

Create TBI Navigation System to assist with TBI education • Develop short, effective training on TBI, definition and resources • Distribute TBI screening tools along with training for next steps • Explore/expand best practices for those with severe head injury in MH/SUD setting • Establish policy on screening, identification, and definition of head injuries within ADMH • Create TBI peer/caregiver support/mentorship program



ACL Federal/State Partnership Traumatic Brain Injury Grant 2019-2021. This project was supported, in part, by grant number 902BSG0044-01-00 from US Administration for Community Living, Department of Health and Human Services, Washington, DC, 20201. Grantees undertaking projects with government sponsorship are encouraged to express freely their findings and conclusions. Points of view or opinions do not, therefore, necessarily represent official ACL policy.

September 2021

[www.alabamatbi.org/mentalhealth](http://www.alabamatbi.org/mentalhealth)

# Considerations when Engaging in Treatment /Healthcare of those with a history of head injury-

cognitive overload, learning new facts, rules and routine, attention, memory and recall, oral vs. written instructions, noisy/busy environment, sustained attention, attention span, fast paced, structured vs non structured treatment, misattributes of behavior, talking too much and unaware of it, altered social awareness, persistent behavior despite impacting others, decreased ability to participate/engage in treatment, increased risk of relapse, mixing medications with drugs/alcohol, medication based treatment and other health factors, medication side effect sensitivities, is it really psychosis or hallucinations, aggressive behavior, noncompliance, low motivation to change, poor memory and disorganization, low commitment, flat affect, alternatives to group therapy and multi-step processes

## Positive TBI Screening-What now?

Accommodations/Behavior Interventions for Mental Health Professionals



What If There's A  
Traumatic Brain Injury?



FREE TRAININGS  
[WWW.ALABAMATBI.ORG](http://WWW.ALABAMATBI.ORG)

# TBI 101- Definition & Diagnosis



# What Providers Need to Know: Behavioral Health and Brain Injury

## What is Brain Injury?

**Acquired brain injury (ABI):** injury to the brain that is not hereditary, congenital, degenerative, or induced by birth trauma. ABI includes both of these injury types:

### Traumatic Brain Injury:

alteration in brain function, or other evidence of brain pathology, caused by external force, such as falls, assaults, motor vehicle crashes, sports injury

*SAMSHA Publication  
NO. PEP21-05-03-001, 2021*

### Non-Traumatic Brain Injury:

damage to the brain by internal factors, such as lack of oxygen, stroke, or brain tumor

*Brain Injury Association of America,  
www.biausa.org*

Approximately one in five American adults have sustained a TBI severe enough to result in some loss of consciousness.



The vast majority of injuries are mild, with more than 90% released from emergency departments. Most will recover from a mild brain injury. However, there is evidence to suggest that individuals with co-occurring behavioral health conditions often have poorer outcomes following injury than those who do not.

*Traumatic Brain Injury and Substance Use Disorders, Lemsky C., 2021, attcnetwork.org*

Not only does brain injury cause behavioral health problems, but associated deficits can also affect the effectiveness of behavioral health treatments. Identifying and supporting those with brain injury can lead to more successful outcomes.

*SAMSHA Publication NO. PEP21-05-03-001, 2021*

## What are Common Symptoms?



### Motor and Sensory Effects:

- Dizziness, lightheadedness, or vertigo
- Fatigue or lethargy
- Changes in walking and coordination
- Headaches and other pain symptoms



### Emotional/Behavioral Dysregulation:

- Increased likelihood of concurrent mental health issues (anxiety)
- Increased likelihood of behavioral problems (anger, irritability, socially inappropriate behavior)



### Cognitive Impairment:

- Slowed thinking (inability to process information efficiently)
- Memory challenges (inability to remember things in the past)
- Issues in attention/concentration (knowing what to do in the present)
- Difficulties multitasking
- Impairments of language and communication



*Traumatic Brain Injury and Substance Use Disorders, Lemsky C., 2021, attcnetwork.org  
<https://attcnetwork.org/sites/default/files/2021-11/TBI%20%20SUD%20Toolkit%20FINAL%2011.05.2021.pdf>*

## What About the Intersection with Substance Use and Behavior?

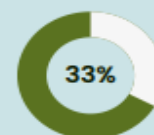
Having one or more brain injuries with loss of consciousness is associated with greater risk for behavioral health problems, including problematic substance use beginning in adolescents and more psychiatric symptoms and a significantly elevated risk of suicide.

*Traumatic Brain Injury and Substance Use Disorders, 2021, attcnetwork.org.*

**2 to 4**

People with brain injury of any severity have 2 to 4 times the risk of attempting or having a death by suicide.

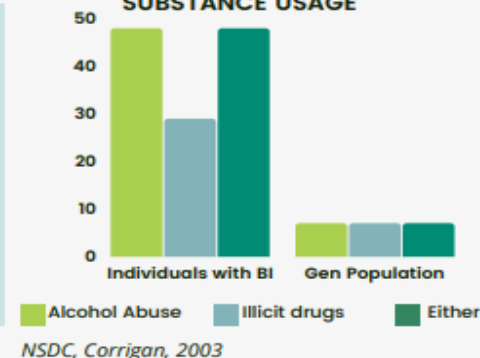
*Dreer, L.E. et. al. 2018*



One-third of individuals with brain injury experience mental health problems 6 months-1 year post injury.

*Fazel, et al. 2014*

### SUBSTANCE USAGE



## Traumatic Brain Injury vs. Acquired Brain Injury

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TBI Defined	ABI Defined
Traumatic Brain Injury (TBI) is an insult to the brain caused by an external physical force, such as a fall, motor vehicle accident, assault, sports-related incident, or improvised explosive device (IED) exposure	Acquired Brain Injury (ABI) is an insult to the brain that has occurred after birth, such as TBI, stroke, near suffocation, infections in the brain, or anoxia <b>and opioid overdose(s)</b>



# Traumatic Brain Injury

## IS

- ✓ Injury from a blunt or penetrating object or injury from rapid movement that causes back and forth movement inside the skull
- ✓ Bruising of brain due to forward/backward movement against skull
- ✓ Twisting of nerve fibers due to twisting of brain within skull
- ✓ Broken or stretched nerve fibers = temporary or permanent challenges

## IS NOT

- ✗ A new onset mental disorder
- ✗ Just emotional stress
- ✗ An acquired intellectual disability
- ✗ The effects of prolonged drug/alcohol abuse
- ✗ Gradual change in cognitive function, dementia

# How TBI damage occurs:



- Brain = Consistency of “jello”
- Bruising of the brain due to forward/backward movement against skull
- Twisting of nerve fibers due to twisting of brain within skull
- Nerve fibers are broken or stretched = temporary or permanent brain damage
- Neurons do not regenerate oxygen once oxygen is pulled from the brain.
- Brain Bleeds even dissolved disrupt function.

# Skull Anatomy



Skull - rounded layer of bone; designed to protect from penetrating injuries.



Base – rough; bony protuberances.

Ridges - Result in injury to temporal & frontal lobes

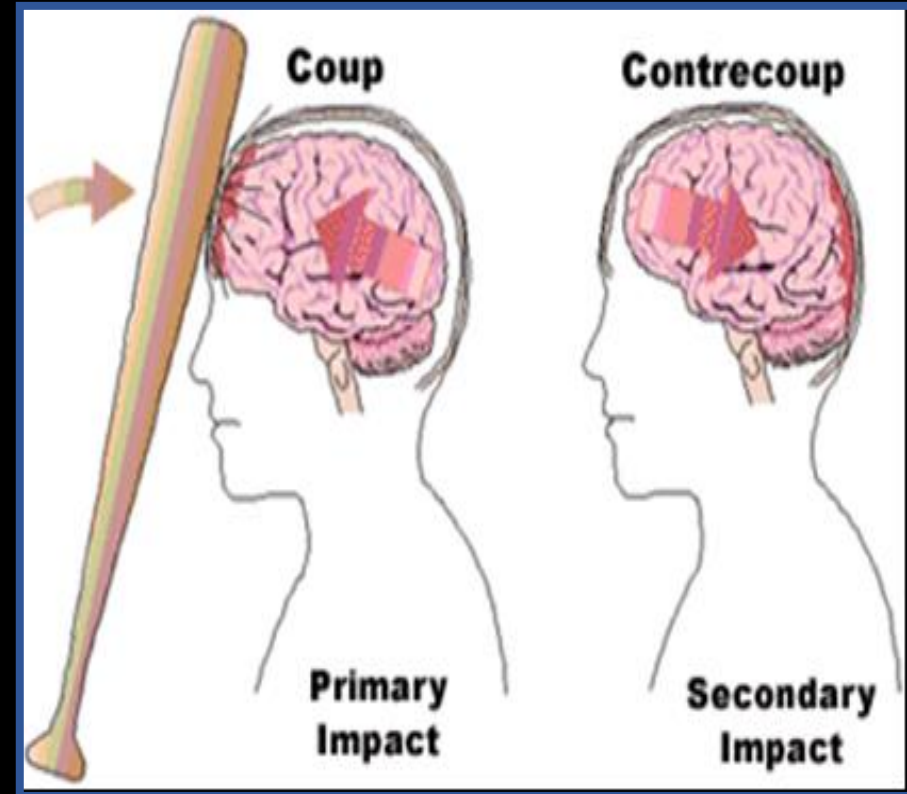
# WHEN THE BRAIN IS INJURED

## Primary Injury

- Direct movement of the brain inside skull (slamming, rubbing, shearing)
- Penetrating object

## Secondary Injury

- Bleeding over and within the brain tissue
- Swelling from fluid leakage
- (increased intracranial pressure)
- Fall subsequent to injury





Typical Neuronal  
Communication

Neuroplasticity

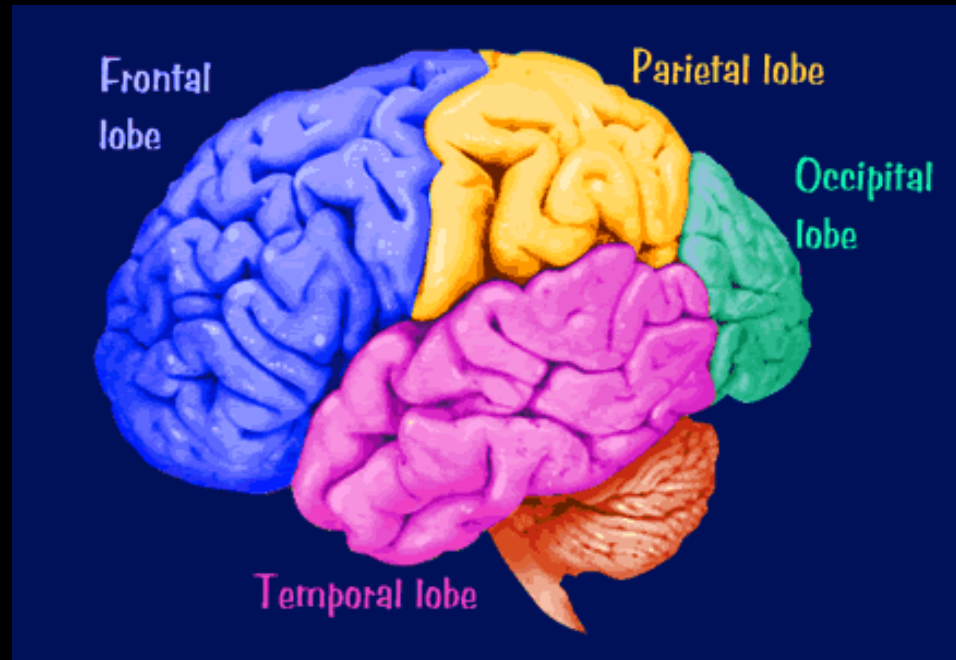


## Frontal Lobe

- Initiation
- Problem solving
- Attention/Concentration
- Inhibition of behavior
- Planning/anticipation
- Self-monitoring
- Motor planning
- Personality/emotions
- Awareness of abilities/limitations
- Organization
- Judgment
- Mental flexibility
- Speaking (expressive language)

## Parietal Lobe

- Sense of touch
- Differentiation :size, shape, color
- Spatial perception
- Visual perception



## Occipital Lobe

- Vision

## Cerebellum

- Balance
- Coordination
- Skilled motor activity

## Temporal Lobe

- Memory
- Hearing
- Understanding language (receptive language)
- Organization and sequencing

## Brain Stem

- Breathing
- Heart rate
- Arousal/consciousness
- Sleep/wake functions
- Attention/concentration



# Leading Causes of Traumatic Brain Injury

in the United States (2002 - 2006)



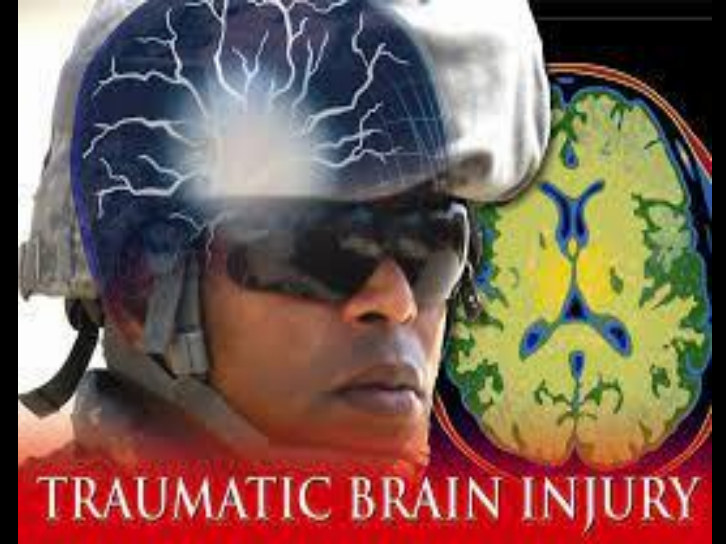
Source: [www.cdc.gov/TraumaticBrainInjury/causes.html](http://www.cdc.gov/TraumaticBrainInjury/causes.html)

brainline.org



# Causes of TBI

- Motor vehicle crashes
- Blow to the head with any object
- Strenuous shaking of body/Shaking Baby
- Acceleration/Deceleration
- Falling and hitting head
- Body/equipment contact-sports
- Strangulation
- Being pushed against wall/solid objects
- Blasts
- Firearms/gun shot wounds
- Near drowning
- Overdose



# Where is TBI?

- Home /Work– Falls, Assaults
- Car, Cycles, ATVs
- Schools, College Parties
- Locker Room/Field/Track/Sports
- Treatment Centers-SA, MH
- Domestic Violence Shelter
- Criminal Justice/Jail
- Military Service
- Foster Care Homes/Facilities
- Nursing Homes-Senior Falls



## TBI by Gender

Males are two times more likely than females to sustain a brain injury.

The highest rate of injury is for males age 15-24.

# Health Disparities and TBI According to the CDC

Higher chance of sustaining- American Indian/Alaska Native

Black Males/Females and Hispanic Individuals less likely to receive treatment/follow up

Military Service and Veterans- more mild injuries/late effects

Individuals in Correctional/Detention Facilities- not screened or treated

Homeless

Intimate Partner Violence

Lower Income and Less Insured, less access to care

Individuals in rural areas more likely to die from TBI

# 3 Types of Head Injuries

## Mild

- Most common
- May or may not lose consciousness
- Headaches
- Dizziness
- Slowed processing
- Forgetfulness
- Fatigue
- Sensitivity to noise and lights
- Altered sleep pattern

## Moderate

- Loss of consciousness from minutes to hours
- May have shearing, bleeding or fractures in skull
- May not recall event
- Confusion
- Impaired verbal memory

## Severe

- Loss of consciousness for 6 or more hours
- Long –term challenges highly likely

Behavior

Social

Cognition



## Alabama Facts:

Year 2021, Alabama had over 6,000 individuals who were admitted to the ER for a mild, moderate or severe head injury according to this Alabama Trauma Registry.

Many of these individuals return to the ER or involved with the law, due to emotional dysregulation, pain or co occurring disorders after injury.

Falls increase and re-injury to the brain increase after injury

Many individuals do not realize a history of TBI (multiple head injuries) affect relationships, employment, learning capability, socialization and mental health many years later. It is now being examined as a chronic condition.

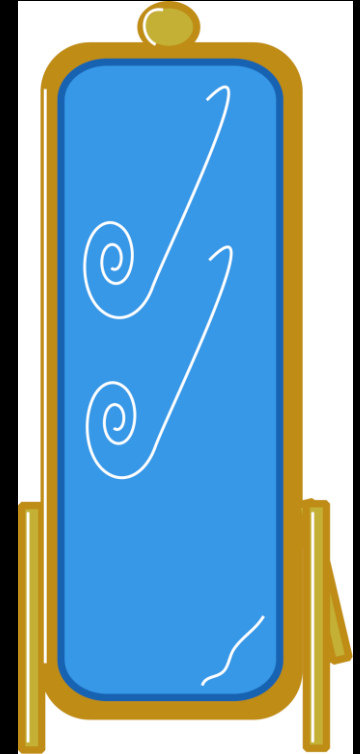
# Risk of Repeat Brain Injuries

- **After 1<sup>st</sup> TBI, risk of second injury is 3 times greater**
- **After 2<sup>nd</sup>, risk of third injury is 8 times greater**



# Changes after a Brain Injury

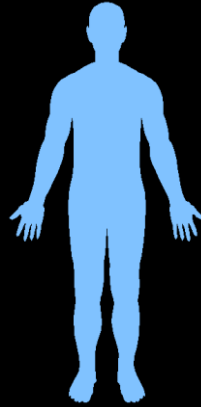
- ***The most important things to remember:***
- No two brain injuries are exactly the same
- The effects of a brain injury depend on such factors as cause, age, location and severity
- Adjustment dependent on “before-after” changes in the person
- Can happen to anyone, anytime, anywhere



# 3 Areas of CHANGE after TBI

## PHYSICAL

1. Fatigue
2. Sleep
3. Pain
4. Mobility
5. Balance
6. Hemiplegia
7. Eye/Hand Coordination
8. Sensitivity hot/cold/taste/smell
9. Hearing/Vision
10. Headaches
11. Seizures



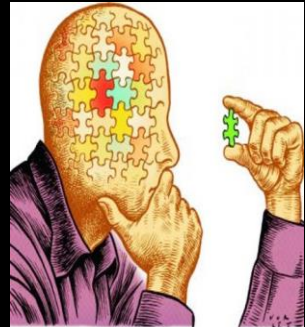
## BEHAVIOR

1. Inflexible thinking
2. Lack of Insight and Self Awareness
3. Interpersonal/Socially Inappropriate/Boundaries
4. Self Centered Focus/Isolation
5. Apathy
6. Impulsivity
7. Anger
8. Depression/Anxiety
9. Emotional Liability
10. Self Correction
11. Perseveration
12. Confabulation



## COGNITION

1. Remembering new and old information
2. Attention/Distractibility
3. Generalization
4. Initiation
5. Planning/Organization
6. Decision Making
7. Problem Solving
8. Time Awareness
9. Before/After Contrast



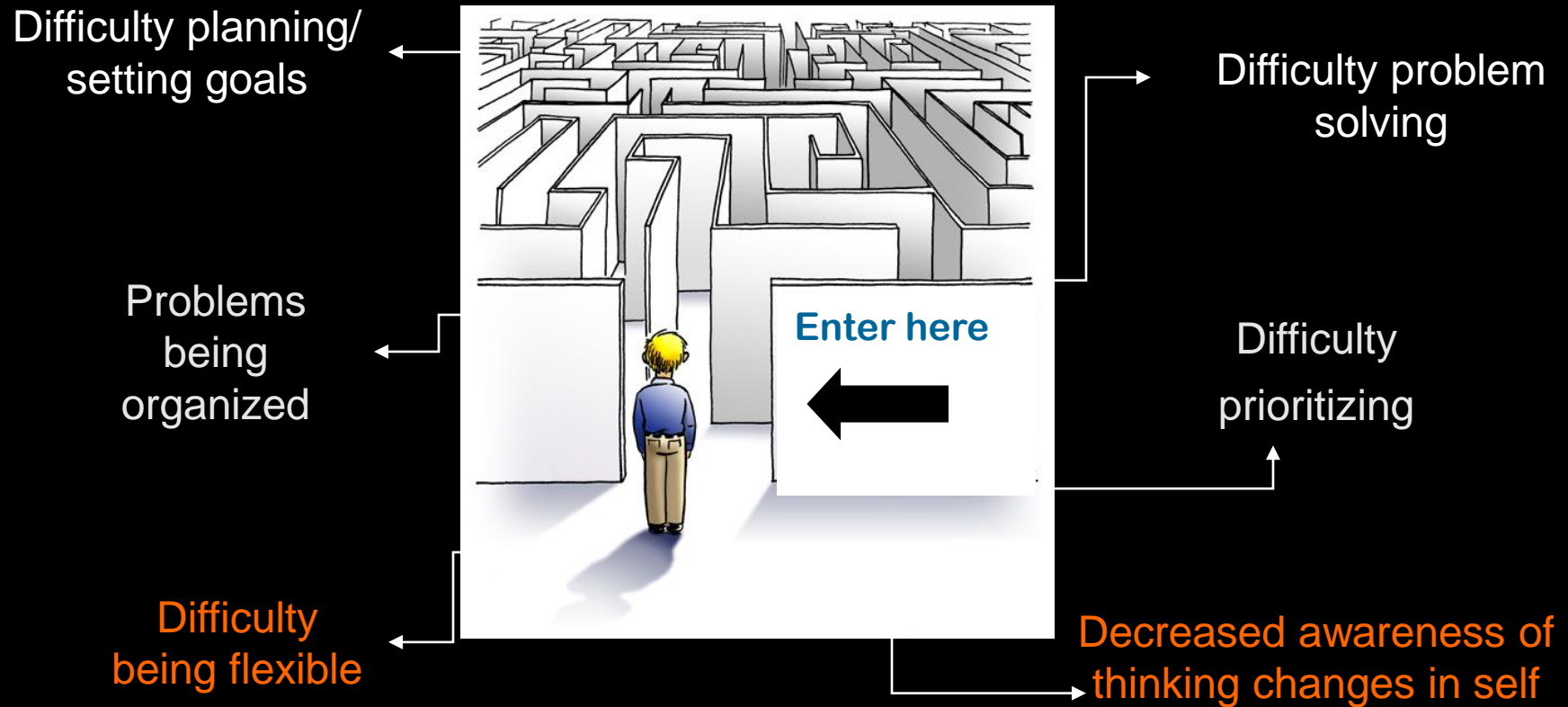
# Cognition

the mental action or process of acquiring knowledge and understanding through thought, experience, and the senses through:

- Knowledge
- Attention
- Memory
- Judgment
- Reasoning/problem solving
- Decision making
- Comprehension
- Production/Processing of language



# Thinking Changes



# TBI In Children and Youth

57 million engage in sports, exercise, and leisure activities each day

- 44 million boys and girls participate in an organized sport annually
- 7.6 million High School students participated in school sponsored athletics during the 2009-2010 school year

As many as 3.8 million SR-related concussions and more severe TBIs occur in the US each year

Childhood TBI predisposes adults to high risk substance use.

Following TBI, children have higher rates of ADHD, ODD/Conduct Disorder, substance use, mood disorders and anxiety

There is a higher suicide rate among individuals whose first TBI occurred in adolescence

Several studies have shown later in life consequences from very early in life TBI while other studies show that onset in adolescence has the greatest chance (childhood vs. older adults) of Lasting effects into adulthood.

**Children's Rehabilitation Pediatric TBI Care Coordinators in Alabama serve more anoxic injuries from near drowning and blunt force trauma-from child abuse**

# Intimate Partner Violence

- 1.3 million women experience domestic violence annually
- Greater than 90% of all injuries secondary to domestic violence occur to the head, neck or face region.
- In 53 women living in a DV shelter... On average women experienced five brain injuries in the prior year, and almost 30% reporting 10 brain injuries the previous year.
- In women reporting to ERs for injuries associated with DV... 30% of battered women reported a LOC at least once, and 67% reported residual problems that were potentially head-injury related.

# TBI and Behavioral Health

Almost half of adults with TBI who have no pre-injury history of mental health problems develop MH problems after the TBI.

The risk of suicide is higher following severe TBI versus mild TBI.

Suicidal ideation can be 7X high in people with TBI than those without

Increase suicide risk persists up to 15 years post head injury

Veterans with multiple TBI, are twice as likely to consider suicide

70-80% patients in hospitals with TBI are discharged with opioid prescriptions

There is a well documented association between TBI and behavioral health comorbidities, including serious depression, anxiety, violent behavior, hallucinations, suicide and substance use disorders. TBI is more prevalent in behavioral health settings.



## TREATING PATIENTS WITH TRAUMATIC BRAIN INJURY

Each year in the US traumatic brain injury (TBI) results in approximately 2.8 million emergency department visits, hospitalizations, or deaths.<sup>1</sup> TBIs account for almost 2% of all emergency department visits, and more than one-quarter million Americans are hospitalized each year with a TBI. Heightened public awareness of sports-related concussions and TBIs incurred in combat in Iraq and Afghanistan have contributed to a marked increase in emergency department visits over the past two decades; however, the greatest increase has been in the rate of fall-related TBIs among older adults. Potentially hundreds of thousands more individuals sustain TBI each year but are not included in the data sets used to form these estimates because they do not seek medical treatment or because they are treated in physicians' offices, urgent care clinics, or Federal, military, or Veterans Affairs hospitals.<sup>2</sup>

Public awareness of TBI has shifted dramatically since it was dubbed "a silent epidemic" in 1980; however, appreciation of its effects has not garnered the attention of professionals outside of medical rehabilitation. Particularly among behavioral health specialists, a gap remains in knowledge about TBI, understanding its implications for behavioral health conditions (i.e., mental illness and substance use disorders), and active consideration of treatment implications.<sup>3</sup> This Advisory briefly summarizes key elements of TBI and describe its relevance to behavioral health, including recommendations for how behavioral health professionals can better meet the needs of patients who have a history of TBI.

### **Key Messages**

- Traumatic brain injury (TBI) is a common neurological condition that results from an external force altering normal brain function, whether temporarily or permanently.
- TBIs vary greatly in severity, which concomitantly creates tremendous variability in the impact on cognition, affect and emotion. A concussion is a mild TBI.
- The lasting effects of TBI also depends on whether there are multiple injuries, age at which they occur and whether a person already had another source of compromise to brain function
- The fingerprint of TBI is damage to the frontal areas of the brain, which with sufficient magnitude results in impairment of a person's ability to regulate cognition, emotion, and behavior.
- Not only does TBI cause behavioral health problems, associated deficits can affect the effectiveness of behavioral health treatments.
- Behavioral health professionals do not identify TBI among their patients.
- The consequences of TBI necessitate screening during behavioral health treatment.
- The presence of a problematic history of TBI should lead to identification of accommodations to minimize the effect on behavioral health treatment.

for up to 15 years post-injury.<sup>41,42,43</sup> In suicide prevention, there is growing recognition that among persons with brain injury, risk assessment must focus more on opportunity and less on emotional distress.<sup>44</sup>

## **What Strategies Should Counselors Use for Patients With TBI?**

Behavioral Health Treatment Should Incorporate
1. Screening for a history of TBI
2. Accommodations for neurobehavioral deficits from executive function impairments
3. Holistic approach to co-morbid conditions (e.g., substance use disorder, mental illness, chronic pain, sleep disorder)
4. Create formal and/or informal supports available during and after treatment completion

*John D. Corrigan, PhD, The Ohio State University, 2021*

These strategies are applicable for both children/youth and adults. However, it is important to consider the development of the child as it relates to injury recovery. TBI affects children differently than adults. An injury of any severity to the developing brain can disrupt a child's developmental trajectory and may result in restrictions in school and participation in activities.<sup>12</sup> To be successful, treatment planning should include the child and the parents/guardians in close collaboration with the school.

### **1. Behavioral health professionals should screen for lifetime exposure to TBI.**

TBI has a significant interaction with the occurrence, manifestation, and recovery from behavioral health disorders. Minimally, this is a condition that requires identification by behavioral health professionals. Several brief, easy to use, reliable, valid, and standardized methods are available for eliciting a patient's lifetime history of TBI.<sup>45</sup> A behavioral health professional should know whether a patient's history is a "red flag" for the possibility that consequences of previous TBIs will affect treatment.

The Ohio Valley Center for Brain Injury Prevention and Rehabilitation developed a brief screening tool for use by nonexperts to identify patients who may need support in treatment because of a TBI history. The Ohio State University TBI Identification Method (OSU TBI-ID) is the most widely used screening tool, typically requiring 5-7 minutes. It can be administered by any staff with interviewing skills after brief training that is available free, online <<https://tinyurl.com/osu-tbi-id>>.

For children and youth, Colorado State University's Life Outcomes after Brain Injury Research Center developed the *Brain Check Survey* to screen for brain injury in children aged 5-21. This tool is a brief screen which is intended to be completed by a parent or guardian on behalf of the youth <<https://tinyurl.com/Brain-Check-Survey>>.

# TBI “Fingerprints”



- Our frontal lobe and the temporal lobes are key to managing **behavior** and **emotions**.
- Damage to these regions can contribute to mental health and/or addiction problems.
- Damage to these lobes is considered the **“Fingerprint of Traumatic Brain Injury.”**

# What About Substance Abuse?

*"Substance abuse is a risk factor for having a TBI and TBI is a risk factor for developing a substance abuse problem."*

—John Corrigan, PhD

# Substance Use & Recovery

- Substance use can hinder the healing process during early recovery
- Individual may have less motivation and/or social support to follow through with recovery efforts
- Substance use increases the risk of another TBI
- After TBI, drinking alcohol and using drugs might cause seizures and risk of fall increases.
- Increases effects of common deficits of TBI such as problems with coping, memory, coordination, mood regulation, problem solving, social skills, fatigue and sensitivity to stimulation
- Adds stress to family and support system
- Overdose/Nalaxone- loss of oxygen to the brain

## History of Head Injury? Why knowing matters in Behavioral Health:

If providers know about the TBI, they can begin to engage from the start, make appropriate referrals and treatment plans.

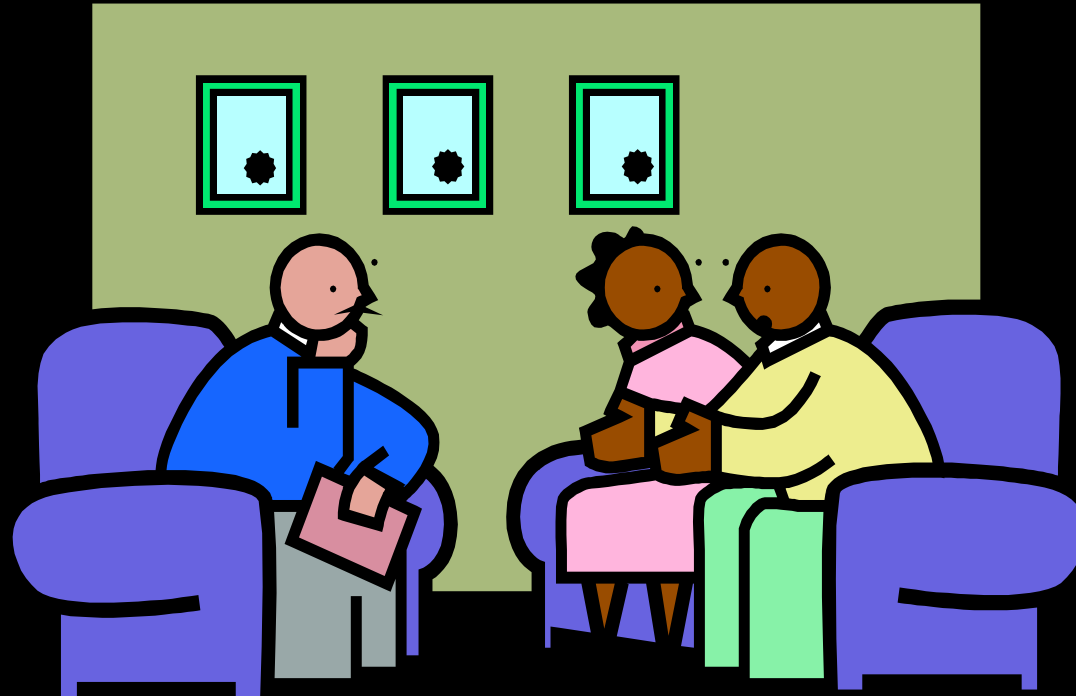
Traumatic Brain Injuries are misdiagnosed, go undetected and mild cases are not followed in the medical community.

Many Behavioral Health professionals do not identify TBI among those they serve in the area of mental illness, ID/DD and Substance Use. Many are hidden among those already receiving services, with professionals not understanding why treatment plans are broken or not followed.

The bulk of services for Mental Health and Substance Use for individuals with TBI are public community mental health centers and substance use programs.

A recent TBI Model Systems study indicated that individuals living with history of opioid use are 10x more likely to die from accidental poisoning with 90% related to drug overdose.

# How can staff best Recognize and accommodate for individuals with TBI?





## **Gold Standard for Treatment/Accommodations-** **For Individuals with TBI- Youth and Adults**

1. Screen for Lifetime History of Head Injury
2. Accommodate for Neurobehavioral Deficits
3. Use Holistic Approach- dual diagnosis, co-occurring conditions
4. Create formal/informal supports that are person centered
5. Find TBI Advocacy Organizations/Peer Specialists for support and to increase TBI self-advocacy.

# Accommodating the Symptoms of TBI

Presented by:

Ohio Valley Center for Brain Injury  
Prevention and Rehabilitation

With contributions from Minnesota Department of Human  
Services State Operated Services

Developed in part with support of a grant from the US Department of Health and Human Services, Health Resources and Services Administration (HRSA) to Ohio Rehabilitation Services Commission and The Ohio State University

# Alabama TBI /Head Injury Services

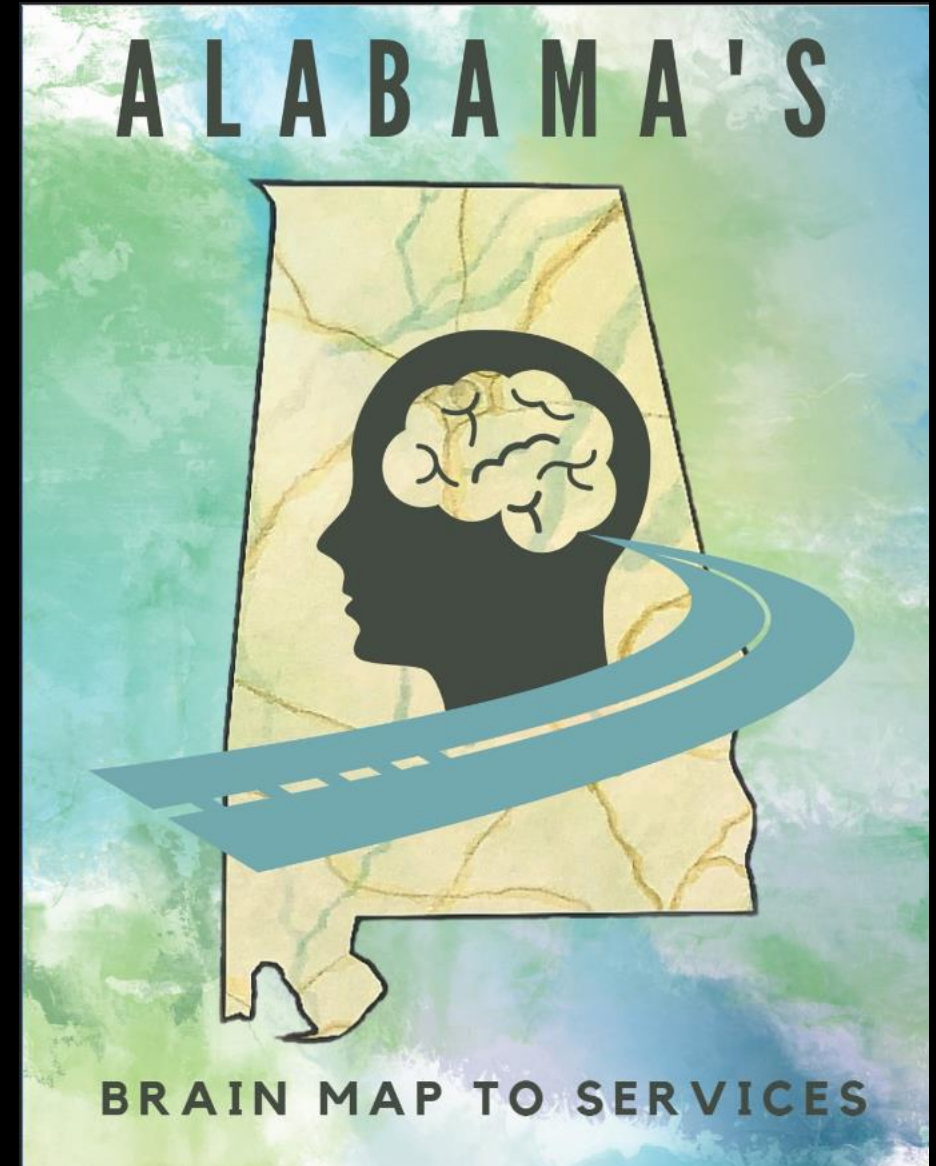


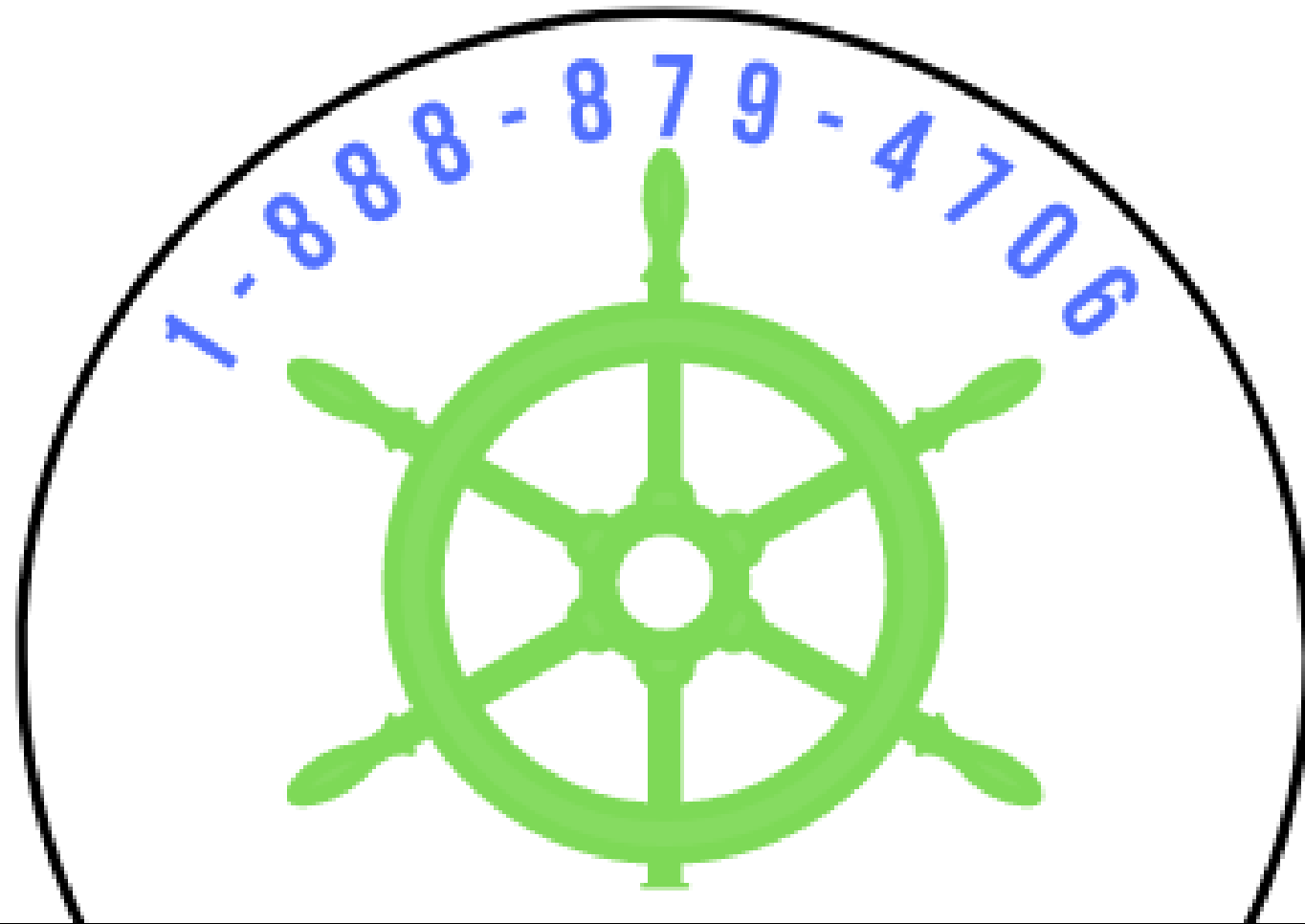
[www.alabamatbi.org](http://www.alabamatbi.org)

- Alabama Brain Map to Services  
Alabama TBI Helpline 1-888-879-4706

State of Alabama TBI  
Resources  
for professionals,  
survivor and families

[www.alabamatbi.org](http://www.alabamatbi.org)



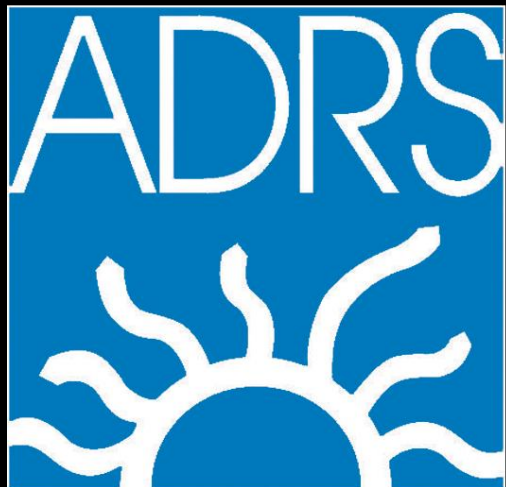


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ALABAMA'S TRAUMATIC BRAIN INJURY  
NAVIGATION PROGRAM & HELPLINE

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## TBI Federal Grant State Issued by Administration for Community Living

*New 5-year TBI- Federal ACL Systems Change Grant awarded to ADRS- 1 million dollars*

*Objective 1: Develop and implement a TBI Navigation System to streamline and coordinate processing of information and referral and facilitate existing resources/service providers to identify barriers and pathways to care to support children and adults with TBI and their families.*

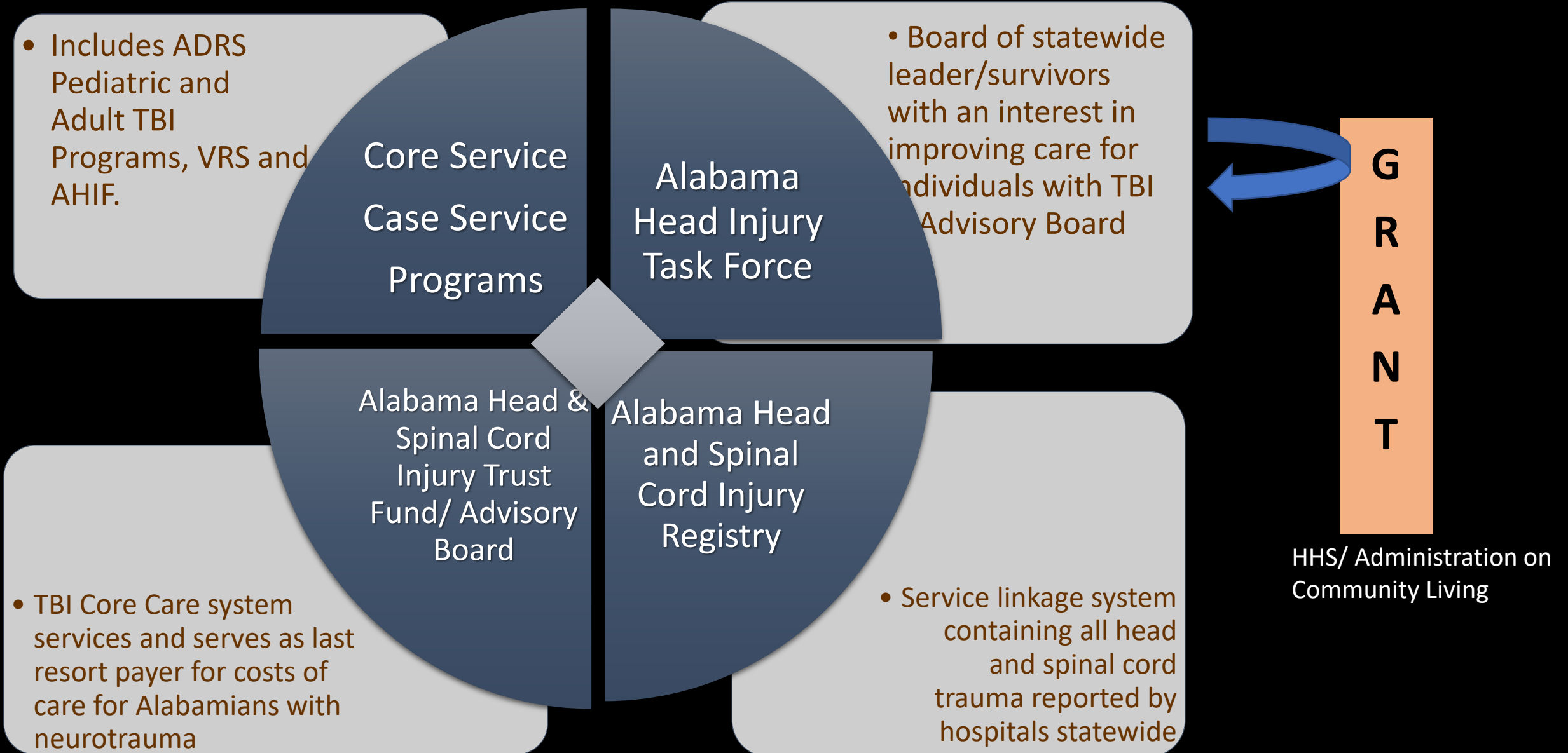
*Objective 2: Expand the scope of evidence-based TBI screening, implementation, training and data collection within the Behavioral Health Systems of Alabama along with initiating Behavioral Health training protocols and addressing identified barriers.*

*Objective 3: Empower individuals with lived TBI experiences and their families to advocate for person centered, culturally diverse-social support groups, outreach, education, awareness and support services.*

*Objective 4- Increase capacity and improve program impact across systems by strengthening state infrastructure through increasing highly streamlined comprehensive data collection and evidence/outcome-based services and supports for advanced partner collaboration across states.*



# Statewide TBI System of Care



# Alabama Core TBI Service System

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- ADRS (Adult TBI Program)
- ADRS Vocational Rehabilitation Service
- ADRS Children's Rehabilitation Service (Pediatric TBI Program)
- ADRS State of Alabama Independent Living Program & Waivers
- Alabama Head Injury Foundation





## Where do TBI Referrals come from?

- Adult TBI Program
- State TBI/SCI Registry
- CRS, SAIL
- UAB/Spain-Lisa Le
- Level 1 Trauma Centers
- Schools
- AHIF/ADAP/Advocacy Organizations
- Other states: Shepherd, Erlanger, Sacred Heart, Piedmont Columbus



- ADRS TBI Navigation Program- Helpline/Referral Line
- ADRS Adult TBI Program (ICBM)
- ADRS Vocational Rehabilitation Service
- ADRS Children's Rehabilitation Service
- ADRS State of Alabama Independent Living Program & Waivers
- Alabama Head Injury Foundation

# ALABAMA CORE TBI SERVICE SYSTEM



## ALABAMA DEPARTMENT OF REHABILITATION SERVICES

Statewide Traumatic Brain Injury (TBI) Program  
Pre-Vocational Services / Interactive Community-Based Model (ICBM)



**What is the TBI/ICBM Program?** After a traumatic brain injury many individuals need time to adjust to physical, emotional, thinking and independent living challenges when they come home from the hospital. The Alabama TBI Program (called Interactive Community-Based Model) provides help with these adjustments to prepare a person to return to community, school and/or work. The Alabama Department of Rehabilitation Services, the lead agency for TBI, provides this program across all counties. The ICBM Program helps individuals with TBI and families address cognitive retraining, social skills development, independence, community reintegration and employability. Services are provided through state funds; medical insurance is not required.

**Who Qualifies?** The TBI/ICBM Program is designed for individuals who:

<i>Have sustained a traumatic brain injury as a result of neurotrauma (external force)</i>	<i>Are less than 2 years post injury</i>	<i>Have an Alabama Address and need for in-home services</i>	<i>Can benefit from cognitive and/or behavioral rehabilitation program</i>	<i>Are not ready for traditional vocational rehabilitation services at time of referral</i>
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**Traumatic Brain Injury Care Coordinators** are Master's Level Rehabilitation counselors trained in providing specialized services. Through the ICBM Program, the TBI Care Coordinator works with individuals with TBI and family members so that services are tailored to meet individual needs. The Care Coordinator will:

- Gather personal and medical information
- Coordinate services provided
- Evaluate independent living skills
- Assist family in navigating health care and social service system
- Provide counseling
- Provide injury education and training
- Recommend/provide testing
- Provide case management and planning
- Structure cognitive, social and/or volunteer experiences
- Share and refer to local resources
- Provide cognitive activities
- Develop and share coping strategies and behavior management techniques
- Refer to other agencies and providers for individual support
- Help with obtaining accommodations for school or work
- Assist with vocational planning
- Refer to Vocational Rehabilitation when ready for return to school or work

Visit our websites for more information:

TBI ([www.alabamatbi.org](http://www.alabamatbi.org)) / ADRS ([www.rehab.alabama.gov/tbi](http://www.rehab.alabama.gov/tbi))

**Contact Us!** ADRS Traumatic Brain Injury Program  
April B. Turner, State Head Injury Coordinator  
Email: [april.turner@rehab.alabama.gov](mailto:april.turner@rehab.alabama.gov)  
Phone: 334-293-7116 / Fax: 205-945-8517

# ADRS-Adult TBI Care Coordination Program

## **What is the ADRS Adult TBI/ICBM Program?**

After a traumatic brain injury many individuals need time to adjust to physical, emotional, thinking and independent living challenges when they come home from the hospital.

The Alabama TBI Program (called Interactive Community-Based Model) provides help with these adjustments to prepare a person to return to community, school and/or work.

The Alabama Department of Rehabilitation Services, the lead agency for TBI, provides this program across all counties. The ICBM Program helps individuals with TBI and families address cognitive retraining, social skills development, independence, community reintegration and employability.

Services are provided through state funds; medical Insurance is not required. Ages 15 and up within 2 years of injury.



# FAST FACTS

## about Traumatic Brain Injury Program

### What is a traumatic brain injury?

A traumatic brain injury (TBI) is a disability caused by an external force such as a motor vehicle accident, gunshot wound, fall or physical impact which causes a decrease in mental, cognitive, behavioral or physical functions. Each year, 80,000 people in the United States experience the onset of long-term disabilities following a traumatic brain injury.

### What is the Children's Rehabilitation Service TBI Program?

The Children's Rehabilitation Service TBI program provides services to children and teens who have sustained a TBI. Any individual between birth and 21 years of age who is a resident of the state of Alabama and has a diagnosis of a TBI can enroll in the Children's Rehabilitation Service (CRS) TBI program. Once enrolled in the program you will be assigned a CRS care coordinator who is specially trained in TBI.

### What services do TBI care coordinators provide?

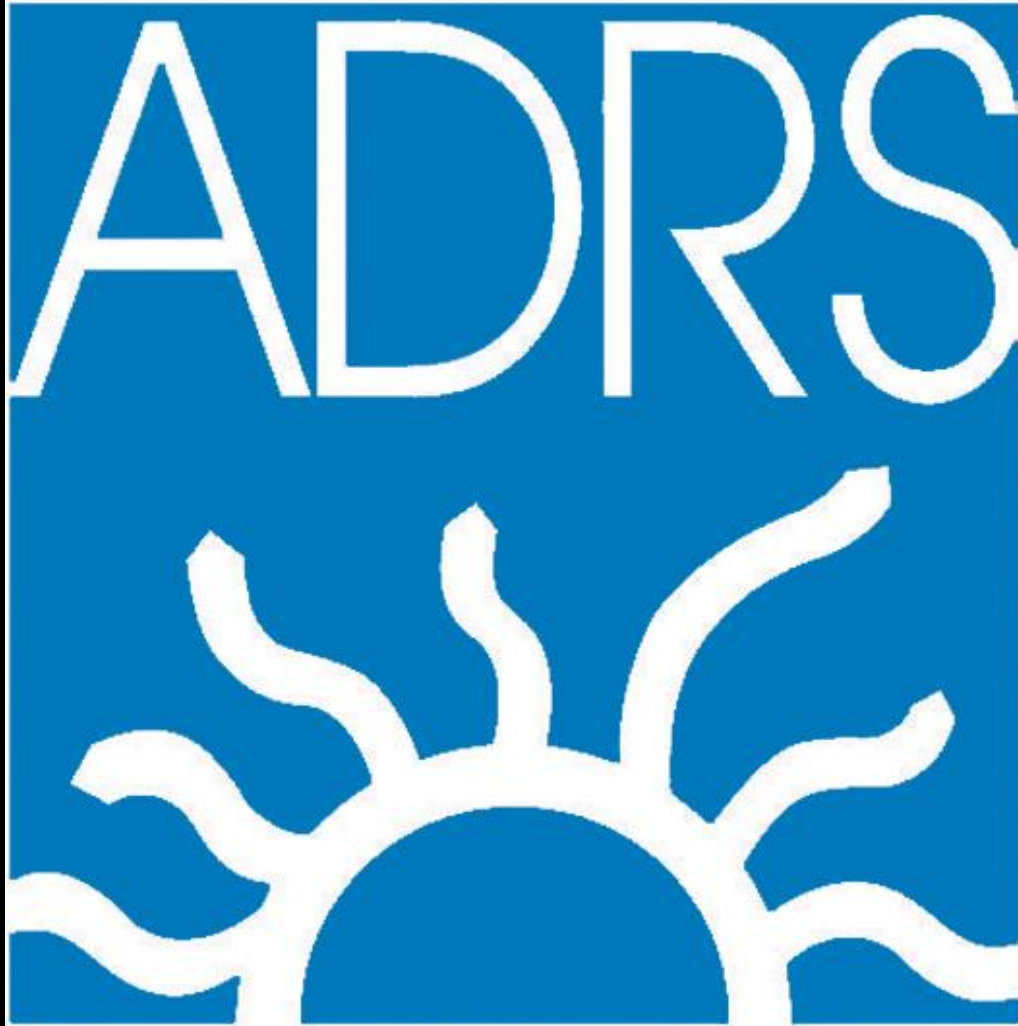
Care coordinators provide ongoing support in schools, homes, and communities, including:

- providing assistance locating community resources
- coordinating all services a child receives
- providing parent, family, and community education to enhance care skills and medical knowledge
- helping children and youth with TBI to transition from hospitals and rehabilitation centers to home, school, and community
- helping children and youth with TBI to participate in activities in their homes, schools, and communities
- helping children and youth with TBI and their families plan for all aspects of adult life
- providing information and education on how TBI affects students in the classroom
- helping the consumer, family, and school to establish appropriate educational goals
- providing education and assistance to the family in obtaining appropriate school services (such as an Individualized Educational Plan (IEP) or a 504 Plan)
- making referrals to CRS clinics for specialty evaluations

*For more information  
about the Traumatic Brain Injury Program in your area,  
call 1-800-846-3697,  
or visit [www.rehab.alabama.gov/crs](http://www.rehab.alabama.gov/crs)*

# ADRS- Pediatric TBI Care Coordination Program





- Vocational Rehabilitation Services
- Short TBI Case Management
- Long Term TBI Supports for school/work
- Transition Services
- Community/Supported Employment
- Blind and Deaf Services
- Lakeshore Evaluation Unit
- Adaptive Driving
- Assistive Technology
- Disability Consultation
- TBI Consultation

# **Alabama Head Injury Task Force**

## **ADRS Commissioner - Chairman**

**Task Force Membership**  
**5-Year Priority Term Beginning September 2021**

**Priority Group  
1  
Education &  
Awareness**

**Priority Group  
2  
Community  
Reintegration**

**Priority Group  
3  
Infrastructure**

**Priority Group  
4  
Service Access**

**Priority Group  
5  
Pediatrics**

**Priority Group  
6  
Advisory Council  
State TBI  
Plan/TBI Grant**



**ALABAMA  
HEAD INJURY**  
Task Force

Developing the ideal service delivery system for  
Alabamians impacted by traumatic brain injury

# Alabama Head Injury Task Force

- **Alabama Department of Rehabilitation Services-Lead Agency**
- Alabama Coalition Against Domestic Violence
- Alabama Head Injury Foundation
- UAB Injury Control Research Center
- Alabama Department of Senior Services
- Alabama Child Death Review Systems
- Alabama Council for Developmental Disabilities
- Spain Rehabilitation Center
- Alabama Department of Human Resources
- Alabama Early Intervention System
- Alabama Medicaid Agency
- Department of Youth Services
- ADRS Children's Rehabilitation Services
- ADRS Lakeshore Rehabilitation Center
- Alabama Department of Mental Health
- ADRS State of Alabama Independent Living Services
- Alabama Disability Advocacy Center
- **Children Hospital of Alabama**
- Alabama Department of Public Health
- Alabama Department of Education
- Alabama Department of Insurance
- Alabama Veteran's Affairs
- Pediatric/Adult Neuropsychologists
- Survivors and Families

## Target Priority Areas Next 5 years

**1) Education and Awareness 2) Community Reintegration 3) Infrastructure 4) Service Access 5) Pediatrics**

## Alabama Head Injury Task Force News



### Survivor Spotlight – Matt Beth, Auburn, AL

As I have been told a million times, and it seems particularly true in my case, “every brain injury is different.” I sustained my brain injury in July of 2016 by falling off the roof of a three-story building. It was a miracle that I even survived. I suffered a traumatic brain injury in my brain stem from the fall, but it was again a miracle that I was completely unaffected cognitively. However, I did acquire several physical disabilities, including the physical inability to speak, walk and use the left side of my body (hemiparesis).

Since I only present with physical disabilities, after spending a couple of years solely focused on my rehabilitation, I have been chipping away at my education. Since my TBI, I have earned my bachelor’s degree in exercise science and my master’s degree in exercise science, and I’m currently working on my Ph.D. in kinesiology. Somewhat ironically, I am doing my Ph.D. in a neuro-biomechanics lab.

The only cognitive side effect elicited by my injury is an entire month is missing from my memory, starting from about a day and a half before my accident. Since I had no memory of what happened, I had to figure out what was going on by myself, which was particularly difficult because, before my injury, I had never even heard of “TBI” before.

Advice was given to me that “you make your own luck,” essentially saying that you get lucky because of your hard work and preparation for any situation that comes your way. I have taken that to heart, and it has driven me to strive for success in my academics to prepare myself financially for my future. I hope this advice that was given to me will also resonate with others and help them to dig deep within and work hard at anything that they do.



The Navigation Program continues to provide information, referral and resource facilitation statewide. The

TBI/Behavioral Health Leadership Team has met and invited additional partners to assist with screening, training and education within the Alabama Department of Mental Health, The Crisis Intervention Centers, Hospital Behavioral Health Units and Mental Health/Criminal Justice. ADMH Commissioner Kimberly Boswell and State Head Injury Coordinator, April Turner have been asked to present Nationally on “Effective TBI/Behavioral Health Partnerships” for **TBI Stakeholder Day on March 10<sup>th</sup>**. Register [here](#).

The ACL Grant recently added a new member to the team. David White will Take the place of Karen Coffey as our new **Grant Project Manager**. Welcome, David!



**Concussion Alliance** is a concussion education and advocacy nonprofit meeting the diverse needs of concussion patients and educating providers on current research and recommendations. They help concussion patients learn how to manage their recovery and find treatment options to navigate a path to wellness. Learn more [here](#).



### Brightway Health Events app for iPhone and Android

Search and join more than 100 live, free virtual group classes from top brain injury rehabilitation organizations each month, for free. Search available by zip code or group type (art, fitness, cooking, etc.). Learn more [here](#).



**SAVE THE DATE!**  
This year’s remaining Task Force meetings are  
*June 9, 2022 and September 8, 2022.*

[www.alabamatbi.org](http://www.alabamatbi.org)  
Alabama Head  
Injury Task Force  
Newsletter





**TBIMS**

**Brain Waves** is a newsletter published twice annually by [The University of Alabama at Birmingham Traumatic Brain Injury Model System \(UAB-TBIMS\)](#) to provide an informational resource for people traumatic brain injury (TBI). Issues from the past 10 years have been archived and are housed [here](#).



**Shepherd Center**  
SHARE MILITARY INITIATIVE

**Shepherd Center SHARE Military Initiative** is a comprehensive rehabilitation program focused on the assessment and treatment of Post 9/11 Veterans and current Service Members who are experiencing symptoms or have diagnosis of TBI and any co-occurring psychological/behavioral health concerns. Contact AJ Veal, SHARE Marketing and Outreach Coordinator at [aj.veal@shepherd.org](mailto:aj.veal@shepherd.org).

**Toll Free TBI Helpline**   
**1-888-879-4706**



**SUBI Workbook for Brain Injury and Substance Abuse**  
The Substance Use/Brain Injury (SUBI) Bridging Project of Toronto created the Client Workbook for people who are living with the effects of a brain injury and drug and alcohol addiction. If you would like more information on the workbook, click [here](#) to view or download.



Visit [AlabamaTBI.org](http://AlabamaTBI.org)

**TED**

**The Most Important Lesson from 83,000 Brain Scans**

"After 22 years and 83,000 brain scans...the single most important lesson my colleagues and I have learned is that you can change people's brains. And when you do, you literally change their life." Daniel Amen, psychiatrist and Times best-selling author, talks about the most important lesson we can learn from 83,000 different brain scans. Watch the video [here](#).



**AHIF**  
Alabama Head Injury Foundation

**Alabama Head Injury Foundation (AHIF)** Recreational TBI camp dates have been set and our online support groups continue to meet. Click [here](#) for more information.

*Camp ASCCA Weekend Camp – March 11<sup>th</sup>-13<sup>th</sup> • Camp ASCCA Week-Long Camp – August 14<sup>th</sup>-19<sup>th</sup>  
Camp McDowell Weekend Camp – October 7<sup>th</sup>-9<sup>th</sup>*

- Client Support Groups (Zoom) – Tuesdays, Wednesdays and Thursdays from 1-2 p.m.
- Caregiver Support Groups (Zoom) – 1<sup>st</sup> and 3<sup>rd</sup> Wednesdays of every month from 10-11 a.m.
- Caregiver Information Sessions (Zoom) – Thursdays from 2-3 p.m.



The **Alabama Disabilities Advocacy Program (ADAP)** offers services to people living with disabilities within Alabama to help promote a higher quality of life and protect, promote, and expand their rights. Services include training for consumers, family members, and professional groups about disability rights issues, answer technical issues and provide referrals on rights issues, and advocacy services for those eligible within the seven programs offered. Learn more [here](#).



The **Alabama Parent Education Center (APEC)** is a small non-profit organized by parents in central Alabama to provide parents with training, information, and support to help them become meaningful participants in their children's education and to ensure that their children become productive, well-educated citizens. Learn more [here](#). You can download their new TBI tip sheet [here](#).



**Children's Rehabilitation Service (CRS)** is a statewide system of services for children with special health care needs and their families, and adults with hemophilia. Every county in Alabama is served through a network of 14 community-based offices staffed with skilled professionals who provide quality medical, rehabilitative, and educational support services. The PASSAGES Pediatric TBI Care Coordinators has served a total of 239 consumers through the 1<sup>st</sup> quarter of FY22 assisting children and youth with transition from hospital to home, community, and school and providing information/education on TBI residuals to family and school systems. Learn more [here](#).



The **Adult TBI Program (ICBM)** received 1,360 new Trauma Registry records in the first quarter of this year and 662 were contacted for service linkage. The TBI Helpline received 54 requests for information or referral and ICBM received 139 new referrals this quarter.



[www.alabamatbi.org](http://www.alabamatbi.org)

MEDIAN NUMBER OF HEAD IMPACTS  
PER ATHLETE IN A SEASON:

378 08

TACKLE FOOTBALL

FLAG FOOTBALL



[cdc.gov/HEADSUP](https://cdc.gov/HEADSUP)



# Alabama Sports Concussion Law (2011)



Advocated by Sports Concussion Committee within the Alabama Head Injury Task Force



Prevent, Identify and Treat concussions



Guidelines for returning to play



It applies to ALL athletic organizations statewide





## So here's the math...

If students are back at school within days:

- + They **don't** feel 100%
- + They **do** feel better every day, doing more with less symptoms
- + And most **are** completely resolved within 4 weeks ...

Where does concussion management really happen?



In the **general education** classroom!  
(Good News+++)  
Most concussions are **not** a 504/IEP issue!

Good concussion management = quick, flexible, short-term

# Symptoms from a Concussion

Concussion **IS** brain injury – function is impacted in brain cells => concussion does **not** show up on an MRI or CT

If jolt to the head and evidence of a symptom => concussion diagnosis

Concussion side effects do not end upon discharge from the ER

## Physical

- Headache
- Dizziness/Nauseated
- Light sensitivity
- Noise sensitivity
- Blurry vision

## Cognitive

- Trouble remembering
- Trouble concentrating
- Easily distracted
- Mentally Foggy
- Processing slower

## Emotional

- More irritable
- More sad
- More anxious
- Uncooperative

## Sleep/Energy

- Fatigued
- Drowsy
- Trouble sleeping
- Sleeping too much
- Talking more or less than usual

Concussion-generally short-term, functional injury that gets better within days to weeks (up to 4 weeks) **without** long-term effects.



## MANAGING CONCUSSIONS IN ALABAMA SCHOOLS

**CONCUSSIONS HAPPEN, AND NOT JUST TO ATHLETES-  
TO ALL CHILDREN AND YOUTH.**

When they do, students need support to return to learning. As they recover, educators need to know how to help by providing immediate, flexible and relevant academic support in school or at home.

### WE CAN HELP!

Alabama has adopted the Teacher Acute Concussion Tool (TACT), an online resource kit designed to help teachers learn strategies to support students as they Return to Learn following a concussion. The TACT builds general education classroom teacher capacity so students feel and learn better during recovery from a concussion. TACT builds teacher knowledge and confidence as they learn how to customize approaches to teaching styles to support the needs of students with a concussion, and delivers all these supports and information when teachers need it.

### WANT TO LEARN MORE?

Visit our landing page <http://www.getschooledonconcussions.com/alabama/>  
(Password: TACTalabama2020)  
or contact: [april.turner@rehab.alabama.gov](mailto:april.turner@rehab.alabama.gov)  
334.293.7116



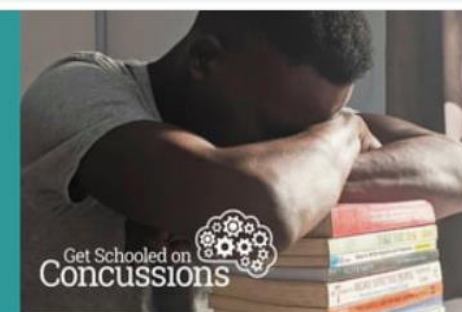
SPONSORED BY THE ALABAMA HEAD INJURY TASK FORCE AND  
THE ALABAMA DEPARTMENT OF REHABILITATION SERVICES



POWERED BY weebly



## Are you ready to Get Schooled on Concussions?



Enhance your Return to Learn (RTL) plan with these FREE easy-to-access tools

### Do you have a student with a concussion?

Majority of students with concussion resolve within 1 to 4 weeks, and are back to school (often still with symptoms) within days. Classroom teachers play a pivotal role in promoting the best chance for a smooth and seamless recovery.

Get Schooled on Concussions provides you quick tools and strategies to support students with concussions when you need it, no advanced training needed.

Recommendations are clinical, practical and best practice approaches to concussion RTL management.

### Start using your FREE access today:

[getschooledonconcussions.com/alabama](http://getschooledonconcussions.com/alabama)  
Password: TACTalabama2020

2020 - 2021  
subscription for  
your state educators  
made possible by



### You have complimentary access to:



#### Teacher Acute Concussion Tool (TACT)

4-week specific classroom strategies delivered directly to your inbox tailored to your teaching style, content area, environmental and student factors.



#### Tip Sheets

Access to over 30 individually crafted lessons on how to support students in the classroom and with protracted recovery.



#### Videos

Video tutorials on the academic support of concussion management in elementary, middle and high schools.



# A swifter Return to Learn (RTL) leads to a swifter Return to Play (RTP)



Enhance your Return to Learn (RTL) plan with these FREE easy-to-access tools



## Tip Sheets

Access to over 30 individually crafted lessons on how to support students in the classroom and with protracted recovery.



## Teacher Acute Concussion Tool (TACT)

4-week specific classroom strategies delivered directly to your inbox tailored to your teaching style, content area, environmental and student factors.



## Videos

Video tutorials on the academic support of concussion management in elementary, middle and high schools.



**Start using your FREE access today:**

**[getschooledonconcussions.com/alabama](https://getschooledonconcussions.com/alabama)**

**Password: TACTalabama2020**

**2020 - 2021 subscription for your state educators made possible by**



# Traumatic Brain Injury & Behavioral Health

## Traumatic Brain Injury Definition

Traumatic Brain Injury is a common neurological condition that results from an external force to the head that alters normal brain function.

The four lobes of the brain include: Frontal, Temporal, Parietal and Occipital Regions.

Once there is enough force to the head from a blow, shake or blast, the brain can jiggle like Jell-o within the skull to cause bruising, bleeding, swelling and/or lack of oxygen to the brain.

The TBI requirement of an external force clearly separates it from other acquired brain injuries that occur after birth such as stroke, tumor, anoxia, or shock.

TBI Facts... Effects from a TBI may be temporary or permanent. No two brain injuries are alike. Male incidence is 2 to 1 versus female and after the 1<sup>st</sup> TBI, the chance of having a 2<sup>nd</sup> TBI is 3X greater.

## Causes of Traumatic Brain Injuries:

- Falls in Younger Children and Older Adults
- Vehicle & Recreational Boarding Accidents
- Intimate Partner Violence
- Sports-Related Injuries
- Combat Injuries
- Shaken Baby Syndrome/Child Abuse
- Near Drownings
- Gang Violence/Criminal Activities
- Firearms/Gun Shots
- Overdose/Strangulation

## Severity

TBI varies greatly in severity based on the effect on brain function. Alteration in function can range from a brief, temporary disruption in thinking such as being dazed or confused, to being in a coma during which the brain is not able to respond to pain or other strong stimuli. All levels require recovery after a hospital discharge.

## The classifications of TBI include 3 Levels:

1. Mild (also known as concussion, occurs in 80% of head injuries)
2. Moderate (10-13% of head injuries)
3. Severe (8-10% of head injuries)

## Effects of TBI

Lasting effects of a TBI depend on whether there are multiple injuries, at what age they occur, and whether the individual already has another source of compromise to brain function.

Effects can be temporary, and others can be permanent.

## Neurobehavioral Effects may include:

### Thinking and Processing Effects:

- Memory Loss
- Problem-Solving or Reasoning
- Comprehension
- Impaired Judgment
- Language/Aphasia
- New Learning

### Sensory Effects:

- Sensitivities to Light, Noise, Hot and Cold
- Hearing and Vision Impairments
- Diminished Taste or Smell

### Physical Effects:

- Extreme Fatigue
- Headaches
- Sleep Disturbance
- Seizures
- Balance/Coordination
- Weakness on One Side/Paralysis
- Slurred or Impediment in Speech



[www.alabamatbi.org](http://www.alabamatbi.org)

Toll Free TBI Helpline 1-888-879-4706

## Behavioral Effects:

- New Onset or Increased Depression/Anxiety
- Impatience/Impulse Control (short fuse)
- Increased Self-Focus
- Socially Inappropriate Behaviors/Expressive Language
- Aggression or Agitation
- Perseveration (stuck on a word, item or subject)
- Irritability or Frustration
- Social Isolation
- Difficulty Initiating
- Unrelated Laughter or Crying
- Lack of Awareness of Excessive Talking or Personal Boundaries

## Behavioral Health Treatment for Individuals with TBI

There is a **need to recognize** individuals with a problematic history of TBI. A diagnosis of TBI **should not** undermine an individual's ability to participate in or benefit from common treatments.

If a behavioral health provider is TBI informed and **engaged from the start** - appropriate referrals, accommodations and treatment will follow.

Extensive Expertise is **not** required to make simple adjustments or accommodations in treatment. Simple adjustments depend on a previous diagnosis, pre-injury functioning, severity, and after-effects of each injury.

All Behavioral Health services should begin with a **brief TBI Screener Questionnaire**. Allow yourself time to consider the effects from the head injury or injuries and which simple accommodations are to be made **before the treatment begins**.

## Considerations in Treatment:

- Unintentional multiple missed appointments and non-compliance
- Need for repeated instructions to ensure comprehension
- Focusing on deficits
- Extreme fatigue and processing overload
- Lack of emotion or flat affect does not equal lack of interest
- Increased sensitivity to common medications

## Considerations in Treatment (contd.):

- Unintentional low motivation and non-commitment to change
- Large amounts of group work or memorization of multiple steps

## To achieve better results, A Treatment Plan should address:

1. A Daily Schedule
2. Cognitive Activity
3. Medication Review
4. Sleep
5. Nutrition
6. A Supportive Environment

## TBI Protocols or a TBI Gold Standard in Treatment should include:

1. A Brief Screener or questionnaire that asks about History of Head Injuries
2. Simple Accommodations for Neurobehavioral Effects
3. A Holistic Approach - for dual diagnosis and co-occurring conditions
4. Creation of person-centered supports
5. Supports to increase TBI Self-Advocacy by including location and utilization of TBI State Programs, TBI Specialists, Advocacy Organizations, and /or Peer Specialists.

For TBI Screener Information and TBI Information & Support, contact: <http://www.alabamatbi.org/>



Alabama Department of  
REHABILITATION SERVICES



ACL Federal/State Partnership Traumatic Brain Injury Grant 2019-2021.  
This project was supported, in part, by grant number 90285G004-01-00 from US Administration for Community Living, Department of Health and Human Services, Washington, D.C. 20201. Grantees undertaking projects with government sponsorship are encouraged to express freely their findings and conclusions. Points of view or opinions do not, therefore, necessarily represent official ACL policy.

# AL TBI/BH Video: [youtu.be/pC-2iqARpaE](https://youtu.be/pC-2iqARpaE)

## Crisis Care – The Next Step in the Behavioral Health Continuum

No individual is immune from the impact of untreated behavioral health needs. Each year, there are thousands of preventable tragedies that may be addressed with proper mental health resources and access to care. In our communities, jails and hospitals are often the first entry point for an individual in need.

Currently, without a coordinated crisis system of care in Alabama, individuals in a mental health or substance use disorder crisis often have encounters with police officers, first responders, hospital emergency room staff, or end up in correctional facilities, without getting the proper treatment and diagnosis needed.

The Alabama Crisis System of Care:

- Expands access to crisis services
- Maximizes opportunities for the behavioral health workforce
- Reduces the number of hospitalizations and arrests
- Decreases frequency of admissions to hospitals
- Assists individuals in crisis to achieve stability
- Promotes sustained recovery
- Provides connections and referrals to community agencies and organizations, psychiatric and medical services, prevention, and intervention services

ADMH received \$18 million for Fiscal Year 2021, to establish and stand up the first pilot Crisis Diversion Centers in the state. These centers will be a designated place for communities, law enforcement, first responders, and hospitals to take an individual that is in mental health or substance abuse crisis. At the center, the individual could receive stabilization, evaluation, and psychiatric services.

The providers and locations of the first three crisis centers are AltaPointe Health in Mobile, the Montgomery Area Mental Health Authority, and WellStone Behavioral Health in Huntsville. Staged implementation of the centers will begin by May 2021.

ADMH thanks Governor Ivey and legislative investment, which helps to expand and transform the Alabama crisis system of care, dramatically lower healthcare costs, reinvest state dollars, achieve better health outcomes, and improve life for those with acute mental health needs.

## Behavioral Health Crisis Services



[www.mh.alabama.gov](http://www.mh.alabama.gov)



## What is Alabama Head Injury Foundation?



Alabama Head Injury Foundation (AHIF) is a 501(c)3 nonprofit organization that provides support services for survivors of traumatic brain injuries and for their families. In many cases, medical care and rehabilitation can lead to significant recovery for TBI survivors, but the return to life after TBI can be a longer struggle, especially in adjusting to the "new normal" that exists for both the survivor and for their family. AHIF never charges for any of its services, and will work with you to achieve the best quality of life possible.

### AHIF Services

- Resource Coordination
- Support Groups
- Advocacy
- Recreational Camps
- Respite Care
- Therapy Camps

### ALABAMA HEAD INJURY FOUNDATION

*Improving the quality of life for survivors of traumatic brain injury and for their families*

## The First Step is to Contact Your Local AHIF Resource Coordinator

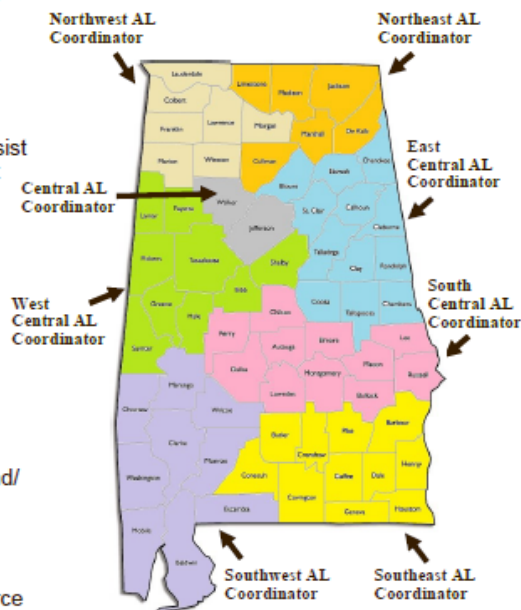
AHIF provides its statewide network of services through the use of field staff, called Resource Coordinators. They live in the communities where the survivors they serve reside, allowing them to have a unique knowledge of the local resources available to survivors and to their families.

AHIF Resource Coordinators can assist survivors with an array of needs, that include the following:

- Assist in securing home modifications or possible independent living options
- Support in applying for and receiving Medicaid/Medicare/Disability benefits
- Financial Management/Personal Budgeting
- Support in securing donated or discounted medical equipment and/or therapy/counseling services

Please visit [www.ahif.org](http://www.ahif.org) or call the AHIF office at (800) 433-8002 to confirm the appropriate AHIF Resource Coordinator for your location.

### AHIF Resource Coordinators



# Alabama Head Injury Foundation



## Traumatic Brain Injury Model System

School of Medicine

Go

[New to Website](#) | [UAB-TBIMS Quicklinks](#)[NEWLY INJURED](#)[HEALTH & DAILY LIVING](#)[CONSUMER GROUPS](#)[PROFESSIONAL GROUPS](#)[RESEARCH](#)[INFORMACIÓN EN ESPAÑOL](#)[Current Covid Health and Safety Guidelines](#)

## UAB-TBIMS Information

[TBI Fact Sheets](#)[In-home Cognitive Stimulation  
Guidebook](#)[Brain Waves eNewsletter](#)[Rehab Tip Sheets](#)[About the UAB-TBIMS](#)

# The UAB-TBIMS Information Network

The University of Alabama at Birmingham Traumatic Brain Injury Model System (UAB-

TBIMS) maintains this Information Network as a resource to promote knowledge in

research, health, and quality of life for people with traumatic brain injuries, their families, and TBI-related professionals. Here, you will find educational materials and information on research activities of the UAB-TBIMS along with links to outside (Internet) information.

Although there are many informative commercial (.com) websites, this website only links to information materials originating from educational, organizational, and government entities.

[Follow @UABTBIMS](#)[Like 1.7K](#)[UAB-TBIMS YouTube](#)[Question or Comment?](#)[Get Email Updates](#)

The contents of this website were developed  
under a grant from the National Institute on

Disability, Independent Living, and Rehabilitation

Research (NIDILRR grant number 90DPTB0015).

NIDILRR is a Center within the Administration for

Community Living (ACL), Department of Health

# UAB TBI Model Systems – Therapy Tip Sheets



Pilot Club of Lee County  
Donates to ADRS TBI Staff

# Alabama TBI Supports





U.S. Department  
of Veterans Affairs

Get help from Veterans Crisis Line >

Search

SITE MAP [A-Z]



Health

Benefits

Burials & Memorials

About VA

Resources

Media Room

Locations

Contact Us

VA » Health Care » Mental Health » Effects of TBI » Effects of TBI

## Mental Health

### ▼ Mental Health

Mental Health Home

Coronavirus

► Get Help

### ▼ Explore by Topic

Anxiety

Bipolar

Depression

Effects of TBI

Military Sexual Trauma

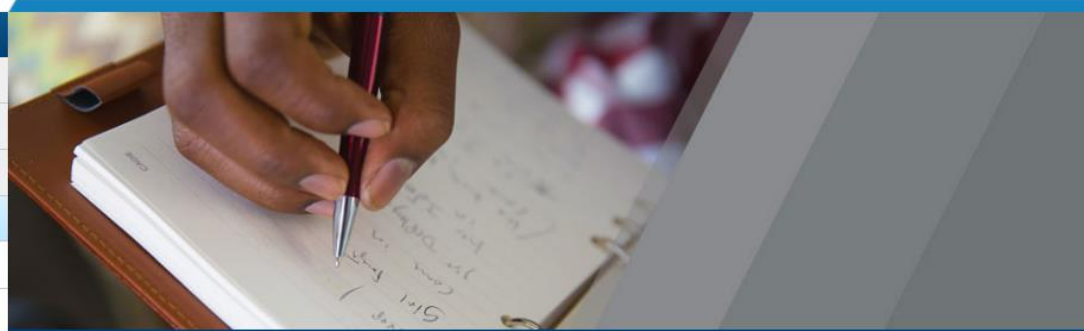
PTSD

Schizophrenia

Substance Use

Suicide Prevention

Tobacco



## Effects of TBI

Overview

Treatment

Take the Next Step

**i** TBI and the COVID-19 pandemic

View resources to help ▾

www.mentalhealth.va.gov

www.polytrauma.va.gov

www.publichealth.va.gov

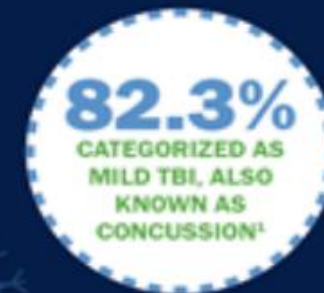
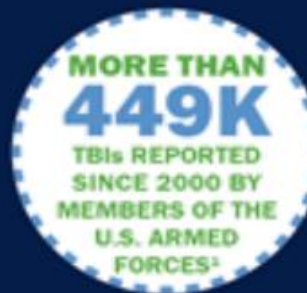
[www.health.mil](http://www.health.mil)  
Military Health System -  
Traumatic Brain Injury  
Center of Excellence

## MARCH IS BRAIN INJURY AWARENESS MONTH



A traumatic brain injury—or TBI—is a blow or jolt to the head that disrupts the normal function of the brain.

The severity of the TBI is determined at the time of the injury and may be classified as mild, moderate, severe, or penetrating.



### WHAT TYPES OF ACTIVITIES CAN LEAD TO A TBI?



Military  
Training  
Exercises



Sports and  
Recreational  
Activities



Motor  
Vehicle  
Collisions

### HOW CAN I BE TBI READY?



## HEADS UP

CDC > Injury Center > HEADS UP > Youth Sports



### HEADS UP

Brain Injury Basics +

Helmet Safety

Youth Sports —

Youth Sports – Online Concussion Training

**Coaches**

Parents

Athletes

Sports Officials

Atención: Conmoción Cerebral en

## HEADS UP to Youth Sports: Coaches

**Online Training**

Fact Sheets

Posters

Additional Resources

### Free Concussion Training Course

**Get prepared for the new season.**

HEADS UP to Youth Sports is a free, online course available to coaches, parents, sports officials, athletic trainers, and others helping to keep athletes safe from concussion.

Coaches: Click [HERE](#) to launch the course.

Please see [How to Create an Account in CDC Train](#) [PDF – 865 KB] for instructions.

**Privacy Notice:** You will be asked to provide your e-mail address if you decide to register for the online training. Please note that it is not necessary to register for the training in order to use this site. Your registration is voluntary. Any information that you provide is fully protected. It is stored temporarily and used only for online training registration purposes.

[www.cdc.gov](http://www.cdc.gov)

# HEADS UP Concussion Management



## BRAIN INJURY IN KIDS

### ALMOST *half* A MILLION KIDS

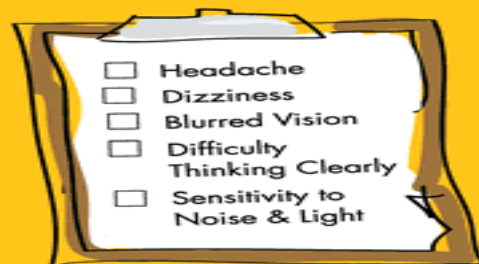
are treated in an emergency department each year for traumatic brain injury\*, including concussion.

\* alone or along with other injuries or conditions.

THAT'S MORE THAN 5,000  
OF THE NATION'S LARGEST SCHOOL BUSES  
FILLED TO CAPACITY.



### SOME BRAIN INJURY SIGNS AND SYMPTOMS



**LEARN MORE  
SYMPTOMS @**

[www.cdc.gov/TraumaticBrainInjury](http://www.cdc.gov/TraumaticBrainInjury)



# 50%

of BRAIN INJURIES AMONG KIDS  
ARE DUE TO  
**FALLS**

**WHAT TO DO**  
*if you think a child has*

**A BRAIN INJURY**

- |          |   |
|----------|---|
| <b>A</b> | <b>ASSESS</b> THE SITUATION                         |
| <b>B</b> | <b>BE ALERT</b> FOR BRAIN INJURY SIGNS AND SYMPTOMS |
| <b>C</b> | <b>CONTACT</b> A HEALTH CARE PROFESSIONAL           |



## HELP KEEP KIDS SAFE *from* BRAIN INJURY

### STAIR GATES



Use gates at the top and bottom of stairs to prevent serious falls among infants and toddlers.

### CAR SEATS



Use child safety seats and booster seats that are correct for a child's age and weight. Make sure they are properly installed.

### HELMETS



Make sure your child always wears the right helmet for their activity and that it fits correctly.

### SOFT SURFACES



Use playgrounds with a soft landing surface (such as sand or wood chips, not dirt or grass).



U.S. Department of  
Health and Human Services  
Centers for Disease  
Control and Prevention

**LEARN more AT:**

[www.cdc.gov/TraumaticBrainInjury](http://www.cdc.gov/TraumaticBrainInjury)

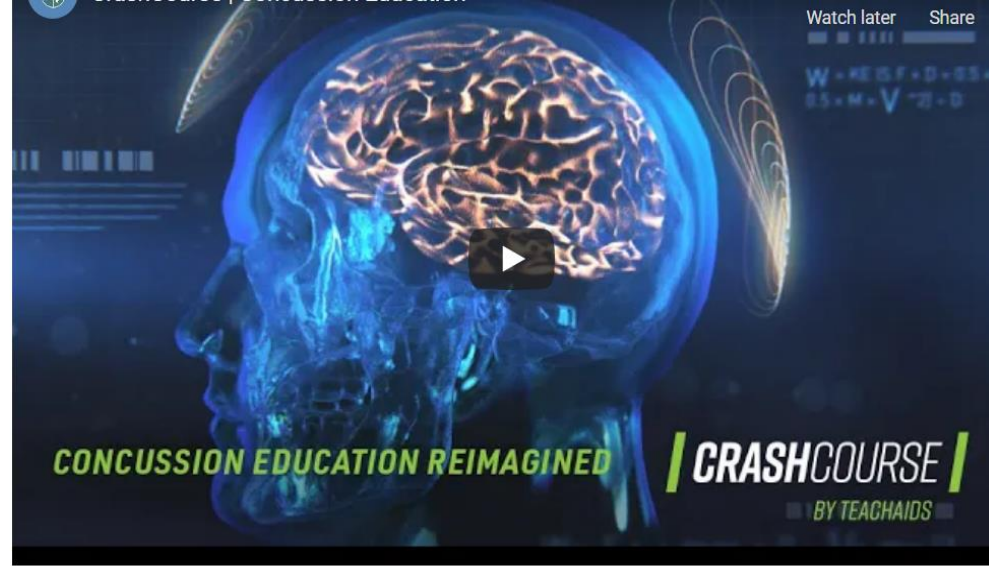


Our Neurosurgical Simulation and Virtual Reality Center, along with our Neurosurgical Anatomy Lab and 3-D printing capabilities, give us unique advantages - from clinic consultation to preoperative planning to intraoperative navigation.

### Stanford Concussion and Brain Performance Center



Utilizing cutting-edge technologies, the Stanford Concussion and Brain Performance Center supports its 4 core values (1) Scientific discovery and collaborative research innovation, (2) Clinical excellence, (3) Performance translation (4) Global public education and outreach. Our Center unifies experts in the field of traumatic brain injury diagnostics and treatment with the goal of not only advancing



Special Feature (2018): This CrashCourse Film (12min) features top Stanford athletes like Heisman Trophy Runner-up and All-American running back Bryce Love and his teammates.



[www.med.stanford.edu](http://www.med.stanford.edu)  
Concussion Crash Course  
and Brain Fly-Through

## Targeted Populations



Children & Youth



Domestic Violence  
/ Intimate Partner  
Violence

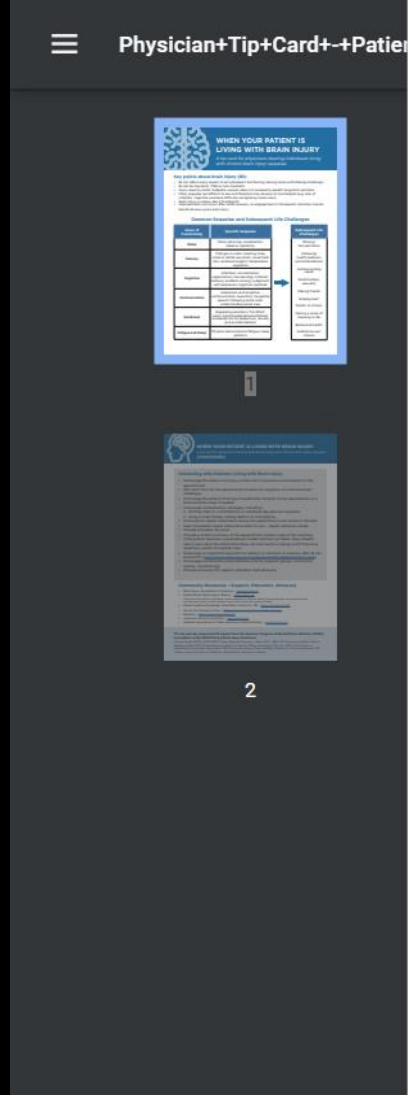


Older Adults



Veterans

[www.nashia.org](http://www.nashia.org)  
TBI Resource Library



# WHEN YOUR PATIENT IS LIVING WITH BRAIN INJURY

*A tip card for physicians treating individuals living with chronic brain injury sequelae*

**Key points about brain injury (BI):**

- BI can affect every aspect of an individual's functioning, leaving some with lifelong challenges.
- BI can be traumatic (TBI) or non-traumatic.
- Injury severity (mild, moderate, severe) does not necessarily predict long-term outcome.
- Many sequelae are difficult to see and therefore may be easy to misinterpret (e.g. lack of initiation, cognitive overload, difficulty recognizing social cues).
- Each injury is unique, like a thumbprint.
- Improvements can occur after initial recovery; re-engagement in therapeutic activities may be beneficial even years post-injury.

**Common Sequelae and Subsequent Life Challenges**

Areas of Functioning	Specific Sequelae	Subsequent Life Challenges
Motor	Motor planning; coordination; balance; spasticity	Driving/transportation
Sensory	Changes in vision, hearing, taste, smell or tactile sensation; visual field loss; unilateral neglect; temperature regulation	Following health/wellness recommendations
Cognitive	Attention; concentration; organization; new learning; initiation; memory; problem-solving; judgement; self-awareness; cognitive overload	Communicating needs
Communication	Expressive and receptive communication; dysarthria; tangential speech; following social rules; understanding social cues	Relationships, sexuality
Emotional	Regulating emotions; flat affect; easily overstimulated/overwhelmed; increased risk for depression, anxiety and suicidal ideation	Making friends
Fatigue and Sleep	Physical and emotional fatigue; sleep patterns	Employment

→

Return to school
Having a sense of meaning in life
Behavioral health
Substance use/misuse

Print 2 sheets of paper

Destination HP LaserJet M203-M2

Pages All

Copies 1

More settings

Print Cancel

[www.nashia.org](http://www.nashia.org)  
Printable Tip Sheets

[Home](#)[TBI 101](#)[Mental Health/TBI](#)[Justice Involved](#)[Military & Veteran](#)[Resources](#)

Jump to: [Substance Misuse/Abuse](#) | [Depression](#) | [Posttraumatic Stress Disorder \(PTSD\)](#) | [References](#)

## Co-Occurring Mental Health Disorders



The relationship and co-occurrence of mental health issues, substance use disorders, and TBI is well-documented (Corrigan and Deuschle, 2008). While assessment and treatment of TBI frequently focus on physical or cognitive impairment, psychological and psychosocial difficulties account for causes of disability (NIH Consensus Development Panel on Rehabilitation of Persons with TBI, 1999). Premorbid psychiatric symptoms may impair an individual's cognitive and psychosocial functioning (Rapoport, McCullagh, Streiner, and Feinstein, 2003; Rosenthal, Christiensen, and Ross, 1998) and may be further exacerbated post injury. It may be helpful for clinicians to discuss if and how the individual's TBI history and associated symptoms are impacting co-occurring problems. While there are many co-occurring mental health concerns among Veterans with TBI history, we will focus specifically on substance misuse/abuse, depression, and post-traumatic stress disorder (PTSD).

To learn more about Veteran mental health and TBI, view the RAND Corporation's report: "[Invisible Wounds: Mental Health and Cognitive Care Needs of America's Returning Veterans](#)"



[https://www.mirecc.va.gov/visn19/tbi\\_toolkit/](https://www.mirecc.va.gov/visn19/tbi_toolkit/)

## TBI/ Mental Health Toolkit



## Living with Traumatic Brain Injury (TBI)

The MSKTC works closely with researchers in the [16 Traumatic Brain Injury \(TBI\) Model Systems](#) to develop resources for people living with traumatic brain injuries and their supporters. These evidence-based materials are available in a variety of formats such as printable PDF documents, videos, and slideshows.

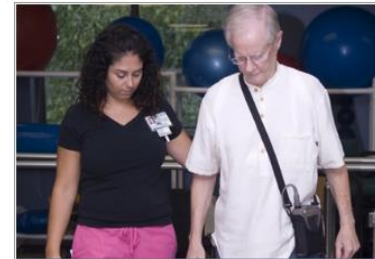
Share:



Acute Inpatient Rehabilitation



Alcohol & TBI



Balance Problems & TBI



**Do you have a TBI?**

### GET INVOLVED

Click the button below to review opportunities and see if you are eligible to participate. Some activities offer a financial incentive.

[Learn More](#)

Was it helpful?



[www.msktc.org/tbi](http://www.msktc.org/tbi)  
Free Tip Sheets and Videos

## PARENTS

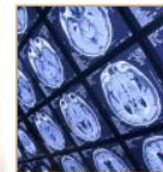
Providing parents with information on services that are available for their child as well as information on how to access support.



**WHAT IS A BRAIN  
INJURY**



**EDUCATIONAL  
INFORMATION**



**MEDICAL  
INFORMATION**



**SELF-ADVOCACY**



**TOOLS FOR  
DAILY LIVING**



**GOVERNMENT /  
LEGISLATION  
PROGRAMS**



**NAVIGATING  
RESOURCES**



**TRANSITIONING  
TO ADULTHOOD**



**CONCUSSION**

[www.cokidswithbraininjury.com](http://www.cokidswithbraininjury.com)  
**Colorado Kids with Brain Injuries Resources**

# Traumatic Brain Injury (TBI)

## WHAT IS TBI?

A traumatic brain injury disrupts the normal functioning of the brain. A bump, a blow, or a jolt to the head can cause a TBI. With the brain still developing, a child is especially at risk for long-term effects from a TBI. Brain injuries occur most often from motor vehicle accidents, gunshot wounds, and falls resulting in long-term deficits in how the person acts, moves, and thinks. Long after the broken bones and body have healed on the outside, the child's brain has not, causing changes that are hard to understand, especially when he returns to school. The term TBI is not used for a person who is born with a brain injury, or sustained brain injury during birth.



## SIGNS OF TBI

The signs of TBI can vary from person to person depending on the severity of the injury and what parts of the brain were affected since each controls a different function of the body, including personality.

### Physical disabilities:

Includes problems speaking, seeing, hearing, and using other senses, like taste and smell. They may

have headaches and fatigue. They may have trouble with writing or drawing skills. They have a heightened sensitivity to light or noise. They may have seizures, sudden contraction of muscles, and difficulty with balance, coordination, walking, or become partly or completely paralyzed on one side of the body.

### Cognitive (thinking) disabilities:

Children with TBI may have trouble with short-term memory, and not able to remember something from one minute to the next. Difficulty learning new material. Difficulty with word-finding. They may have trouble using long-term memory, from a while ago, such as facts learned last month. Children may have trouble concentrating and unable to focus attention for very long. They may think slowly (processing speed) and have trouble talking and listening to others. Children may find it hard to read, write, plan ahead, organize, and understand the order in which events happen (sequence.)


### Social, behavior, or emotional problems:

They may be unable to deal with daily changes in the environment or daily routine; have little or no expressed emotion; depression; irritability, and inability to deal with unexpected events. Children with TBI may have trouble relating to others and maintaining friendships. They may lose control over their emotions by crying or laughing inappropriately.

Brain injuries can be mild to severe, and so can the changes resulting from the injury. This means that it is difficult to predict how the child will recover

[www.alabamaparentcenter.com](http://www.alabamaparentcenter.com)  
TBI Tip Sheet for Parents



Alabama Parent Education Center 

PO Box 118 \* Wetumpka AL, 36092 \* 334-567-2252 \* 866-532-7660 \* [www.alabamaparentcenter.com](http://www.alabamaparentcenter.com)

Special Education V.26

Page 1 of 5



## WHAT IS IT LIKE to live with a TRAUMATIC BRAIN INJURY?

“It is hard to explain to people that just because I look the same, doesn't mean I am.”

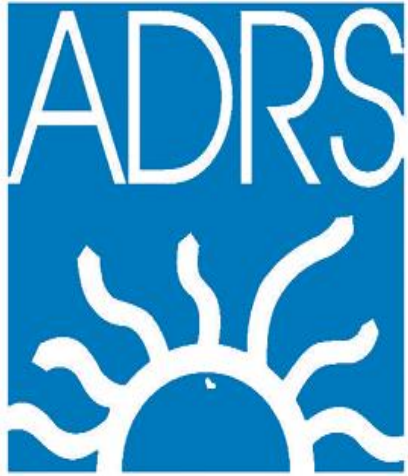
“I try to stay strong and take each day at my own pace.”

“No matter how hard each day is, now I truly know how strong I am.”



GIVE A VOICE TO BRAIN INJURY >> [www.facebook.com/cdcheadsup](http://www.facebook.com/cdcheadsup)

# Questions/comments?



Alabama Department of  
REHABILITATION SERVICES

**April B. Turner, MS, CRC**

**State Head Injury Coordinator**

**Director-Traumatic Brain Injury Program**

**334 293 7116**

**[april.turner@rehab.alabama.gov](mailto:april.turner@rehab.alabama.gov)**

**[www.rehab.alabama.gov/tbi](http://www.rehab.alabama.gov/tbi)**

**[www.alabamatbi.org](http://www.alabamatbi.org)**

**Alabama TBI Helpline- 1-888-879-4706**